# THE TYPE-MATERIAL OF TACHINIDAE (DIPTERA) DESCRIBED BY N. BARANOV

#### BY

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#### SYNOPSIS

An alphabetical catalogue is given of the 156 species and infraspecific taxa of Tachinidae described by N. Baranov, with an account of all located type-material on which the names are based. Sixty-one lectotypes are newly designated. Manuscript names of Baranov that have appeared in print, some of which have been validated by later authors, are enumerated and briefly discussed. The references given include a complete bibliography of Baranov's papers on Tachinidae.

### INTRODUCTION

BETWEEN 1926 and 1942 the Slav dipterist N. Baranov—who was born in Russia but worked mainly in Jugoslavia—published a series of papers on the taxonomy of Calyptrate Diptera, many of them in rather inaccessible Yugoslav journals. In these he described and named a total of 26 genera, one subgenus, 183 species, and 17 infraspecific taxa, distributed as follows : 19 genera, one subgenus, and 145 species (plus 11 infraspecific taxa) of Tachinidae ; 6 genera and 32 species (plus 6 infraspecific taxa) of Sarcophagidae ; one genus and 5 species of Calliphoridae ; and one species of the Muscidae. Our present paper is concerned only with the Tachinidae, the vast majority of which were described from the Oriental and Australasian Regions ; Baranov described only a few taxa from the Palaearctic Region, and none from Africa or the New World. For each species-group taxon we give an account of all the type-material that we have been able to locate, but we have not attempted to assign the species to currently recognized genera or to investigate possible synonymy (this will be done by Crosskey at a later stage for the systematic catalogues of Oriental and Australasian Tachinidae in preparation).

The paper is presented in two parts : Part I contains the properly proposed and

available species-group names of Baranov, and Part II contains the 32 manuscript names of Baranov that have appeared in print ; of the latter a few were cited in synonymy by Baranov himself, but most were published by someone else. Occasionally the other authors have given some descriptive matter and have thus made some of the Baranov manuscript names nomenclaturally available under the *International Code of Zoological Nomenclature*, 1961, so that authorship must be credited to them (under Article 10) and not to Baranov. However, as the names appear in the literature credited to Baranov it is desirable to account for them in the present work. In addition to the names given in Part II we have discovered, during preparation of this paper, a number of specimens in different museum collections that are sometimes labelled as types and bear manuscript names of Baranov that have never (so far as we can trace) appeared in print ; at least 23 such names are known to us, but as they are unpublished manuscript names only we are not recording them.

All names given in Parts I and II are listed alphabetically in their original combinations. For each nominal species-group taxon in Part I the entry is arranged to show the following information in the sequence indicated :—

Name ; author ; date and page reference of original publication ; status and sex of primary type ; authority for lectotype designation (if relevant) ; data of primary type (when available in the sequence : locality, altitude, date of collection, host information, name of collector) ; type-depository ; location of genitalia in the case of male primary types (as 'genitalia *in situ*' or 'genitalia on slide').

Number and sex of paralectotypes or paratypes, with data and depository information as for primary types. (It has not been considered necessary, however, to specify whether male genitalia are present on or removed from paralectotypes or paratypes.)

Explanatory comments or annotations if considered necessary.

The type data as we record them do not necessarily conform exactly in spelling or sequence with the data labels. Geographical names are given as on the data labels (e.g. Buitenzorg and not the modern equivalent of Bogor), except for the correction of obvious misspelling and a modern terminology for sovereign states (e.g. Thailand instead of Siam). The major islands of the former Dutch East Indies are shown by their well known names such as Celebes, and not by their very new names. The names of plants and insects cited in the host information are given as on the data labels and have not been checked for their modern equivalents. Collectors' names are given with full initials when these are known, even if not all are shown on the data labels (e.g. R. J. A. W. Lever instead of R. A. Lever). Baranov spelt his own name with either a terminal 'v' or 'ff' in his papers on Tachinidae, but almost always used the 'ff' ending on his type labels and determination labels ; we have not differentiated in this paper but have adopted the 'v' ending throughout, except when quoting his labels.

Much of Baranov's type-material from H. Sauter's collecting in Formosa is labelled either 'Kankau' or 'Kankau (Koshun)'; we have uniformly used both names as the village of Kankau (now Koko) is in the district of Koshun, with the co-ordinates 22° oo' N. and 120° 49' E. (locality traced from *Gazetteer* (No. 13) *Formosa* (*Taiwan*), U.S. Navy Department, Hydrographic Office Publication No. 393, 139 pp., 1944).

Recognition of type-material and interpretation of its status are often difficult with Baranov species, especially in the face of variant usage in both practice and publication. Certain conclusions need some discussion.

Baranov consistently placed an identification label in his handwriting on each specimen (we interpret the very few exceptions found as due to loss of labels), usually with 'n.sp. N. Baranoff ' after the specific name. However, sometimes some of such material was not mentioned in the original publication. We have felt obliged to exclude from the type-series all material that differs from that specified in the published data except where there seems to be a reasonable explanation for a discrepancy, such as a typographical error or a misread label. All such instances are annotated.

Baranov did not use the term 'holotype 'in publication or on labels, although his 'Typus' is sometimes that. Usually 'Typus' was not mentioned in publication, however. Some series have a 'Typus  $\mathcal{F}$ ' and a 'Typus  $\mathcal{P}$ ' and 'Cotypen', but some have only 'Cotypen' so far as we can discover. Occasional examples are labelled 'Paratypisches Exemplar'. We have regarded all such series as consisting of syntypes and have designated lectotypes when not already designated ; usually, when available, we have selected Baranov's 'Typus  $\mathcal{F}$ ' as the lectotype. Each lectotype has been clearly labelled as such, and  $\mathbf{61}$  lectotypes are newly designated.

Hennig (1941) mentioned many of Baranov's specimens in his list of the Diptera of Formosa, but he was only a recorder of data on specimens in the Deutsches Entomologisches Institut collection and not a reviser or designator of lectotypes. His use of 'Typus' merely indicates the presence of one specimen, as opposed to 'Typen' for more than one ; this is clear from his multiple use of 'Typus' under those species where there were single specimens from two or more localities. Townsend (1934–1942, *Manual of Myiology*, 12 Parts, Itaquaquecetuba) has sometimes cited 'Ht [i.e. holotype] in DEI', but he did not see Baranov material or label specimens, and apparently he listed 'holotypes' by assumption from the literature. If there is only one male in the series, in such a case, we have accepted, albeit reluctantly, Townsend's action as fixation of the lectotype. However, when two or more syntypes of the designated sex are available Townsend's published designation is not an ultimate restriction to a single specimen and we have then designated a lectotype.

Designation of a lectotype automatically converts all other syntypes into paralectotypes, even if they are never labelled as such and even if not conspecific with the lectotype. In Baranov's work mixed type-series rarely occur and we have recorded the few cases known to us. We have labelled all available syntypes remaining after lectotype designation as paralectotypes, even for mixed series. We should, however, comment here that there may be other paralectotypes that we have not seen, and indeed we consider this probable for the following reason : many of the species described by Baranov from an unstated number of specimens were based upon material submitted to him for identification by the Imperial (now Commonwealth) Institute of Entomology, and in the years from 1932 until 1940 he received all the material of Oriental Tachinidae coming to this Institute from British-administered territories ; this often consisted of series of reared specimens sent by departments of agriculture or forestry in India, Ceylon, Burma, Malaya, Solomon Islands, or Fiji, and undoubtedly some original specimens were returned (after identification and description) to collections in the territories of origin. It is therefore likely that some insect collections in the countries mentioned still contain specimens that are paralectotypes of species described by Baranov.

The status of certain material is sometimes difficult to determine, and we have decided each case individually. For some species an expression in the original publication such as 'Weitere Exemplare' seems to be merely a way of recording additional type-material and we have accepted these specimens as syntypes. In other cases it seems clear to us from Baranov's words that the additional specimens cited did not form part of his type-series, nor was the description based upon them. All such cases have been annotated. Should later differences of opinion arise our lectotype designations will nevertheless stand, and any other specimens later believed to be part of the type-series will be additional paralectotypes.

Some comment is necessary on the slide preparations of male genitalia which exist in several museum collections and associate with pinned type-specimens. Baranov was one of the first workers on the Tachinidae to recognize the great value of the male genitalia for distinguishing between closely allied species, especially among the Exoristine and Goniine forms in which few other really reliable characters exist, and he frequently published figures of the genitalia drawn from permanent slide-mounts. Many of Baranov's male type-specimens have had the whole hypopygium neatly extracted and mounted on labelled glass slides, and it is usually possible to associate slides of the genitalia with the actual specimens from which they were made. In the text for each nominal taxon listed in Part I of the present work we have indicated whether the genitalia of the male primary type are in situ on the specimen or separately slide-mounted; we have been able to locate the associated slides for almost all primary types from which they have been removed, but there are a very few (indicated where necessary) for which the slide-mount appears to be lost. In the course of our work it was found that several slides were still among Baranov's own collection (now in the U.S. National Museum) although the associated type-specimens were correctly located elsewhere, and in these cases the slides have now been sent to the museum collections in which the type-specimens themselves are deposited. The statement 'genitalia on slide 'given in the text for any holotype or lectotype therefore implies that the slide will be found in the same collection as the pinned primary type.

Baranov's type-material is scattered among several museum collections. The bulk of it is in London, Eberswalde (East Germany) and Washington D.C., but some type-specimens are in Bogor (Indonesia), Ottawa, Warsaw, Amsterdam, Dresden, and Brisbane. Specimens mentioned by Baranov as being located in the where Baranov formerly worked ; and we thank Dr. A. Kaltenbach for confirming. museum at Stettin are now in the Zoological Institute of the Polish Academy of Sciences, Warsaw. In some of his papers Baranov has mentioned specimens in the Instituut voor Plantenziekten, Buitenzorg (now the Central Institute for Agricultural Research, Bogor) but from a detailed list of Tachinidae in the collection of that Institute (very kindly sent to us by Dr. Ida Njoman Oka : see Acknowledgements) it appears that no actual syntype specimens are present there. There are, however, several holotype, lectotype and paralectotype specimens in the Museum Zoologicum Bogoriense. Specimens mentioned by Baranov as belonging to the Imperial Institute of Entomology are in the collection of the British Museum (Natural History). To condense the text we have used the following abbreviations for the main type-depositories :

| BMNH  | British Museum (Natural History), London.           |
|-------|---|
| CNC   | Canadian National Collection, Ottawa.               |
| DEI   | Deutsches Entomologisches Institut, Eberswalde.     |
| IZPAN | Instytut Zoologiczny, Polska Akademia Nauk, Warsaw. |
| MZ    | Museum Zoologicum Bogoriense, Bogor, Indonesia.     |
| USNM  | United States National Museum, Washington, D.C.     |

Baranov's own collection was acquired by the United States National Museum in 1960, and the depository abbreviation USNM is applied to material that correctly belonged in the former Baranov collection.

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information in reply to our enquiries. We are especially indebted to Dr. Günther Morge for the loan of the very large number of Baranov types, together with genitalia slides, from the collection of the Deutsches Entomologisches Institut, and to Dr. S. Somadikarta for the loan of types from the Museum Zoologicum Bogoriense, Indonesia.

For confirmation of the presence of types in other collections, and for details of their data, we are most grateful to Dr. A. Draber-Mońko (Zoological Institute, Polish Academy of Sciences, Warsaw), Dr. W. Ellis (Zoological Museum, Amsterdam), Dr. R. Hertel (Staatliches Museum für Tierkunde, Dresden), and to Mr. G. E. Shewell and Dr. D. M. Wood (Entomology Research Institute, Canadian Department of Agriculture, Ottawa). Dr. L. P. Mesnil kindly furnished us with information on a few types from the DEI collection that are temporarily in his care at the Commonwealth Institute of Biological Control, Delémont, Switzerland, and Dr. J. d'Aguilar kindly confirmed that the missing holotype of *Voria edentata* was not on loan to him.

We thank Dr. D. Mikacić, Department of Parasitology and Parasitic Diseases, Faculty of Veterinary Medicine, University of Zagreb, for confirming that so far as he can trace there are now no Baranov type-specimens in Zagreb, Yugoslavia, that none can be found in the Naturhistorisches Museum, Vienna (to which it was thought that some material could have been moved from Zagreb during the last war).

Dr. Ida Njoman Oka provided us with a most valuable list of the Tachinidae identified by Baranov that are in the collection of the Central Agricultural Research Institute (Lembaga Pusat Penelitian Pertanian) in Bogor, Indonesia, and we take this opportunity of expressing our particular appreciation of this in view of the large amount of work that its preparation entailed. PART I.—BARANOV'S AVAILABLE SPECIES-GROUP NAMES AND THEIR TYPES

In the following list, LECTOTYPE indicates by present designation.

- Actia pulex Baranov, 1938b : 410. LECTOTYPE ♂, SOLOMON ISLANDS : Tulagi, 19.iii.1934, on Cocos flower (R. J. A. W. Lever) (BMNH). Genitalia in situ. Paralectotypes : I ♂, I ♀, same data as lectotype (BMNH). I ♀, same data as lectotype (USNM).
- Actia takanoi Baranov, 1935a : 557. LECTOTYPE Q, PHILIPPINE REPUBLIC : Los Banos, 19.V.1928 (S. Takano) (USNM).

Paralectotype : I, same data as lectotype (USNM).

Alophora albopunctata Baranov, 1935a: 559. Holotype Q, JAPAN: Hokkaido, Sapporo, 17.X.1923 (S. Takano) (USNM).

Paratypes : I J, JAPAN : Hokkaido, Moiwa, 19.ix.1923 (S. Takano) (USNM) [head missing].

Argyrophylax nigrotibialis Baranov, 1935a: 552. Holotype ♀, Formosa: Koshun, Kankau, ix.1912 (H. Sauter) (DEI).

Paratypes : I  $\Diamond$ , same data as holotype, except date 7.viii.1912 (USNM). I  $\Diamond$ , FORMOSA : Tainan, Shinkwa, 13.vii.1926 (S. Takano) (USNM). I  $\Diamond$ , JAPAN : Kanazawa, 21.viii.1930 (S. Takano) (USNM) ; I  $\Diamond$ , same data, except date 19.viii.1930 (USNM). I  $\Diamond$ , MALAYA: Sungai Siakap, 2.iii.1930 (H. T. Pagden) (BMNH).

No paratypes have been traced from the China, Hangchow, locality mentioned in the original description.

- Arrhinodexia eumorphophaga Baranov, 1934a: 48. Holotype 3, MALAYA: Kuala Lumpur, 5.ix.1927, ex Eumorphus marginatus F. (G. H. Corbett) (BMNH). Genitalia on slide.
- Arrhinomyia issikii Baranov, 1935a : 557. Holotype S, JAPAN : Yumotu, 8.viii.1934 (S. Issiki) (USNM). Genitalia in situ.
- Asiocarcelia pseudocaudata Baranov, 1934d: 407. Holotype &, FORMOSA: Tainan, iv.1910 (H. Sauter) (USNM). Genitalia on slide.

The holotype is labelled by Baranov as 'Carcelia pseudocaudata n.sp. N. Baranoff TYPUS'.

- Bactromyia crassiseta Baranov, 1938b : 409. Holotype Q, AUSTRALIA : Queensland, Biloela [publ. as Biloela], 14.ii.1927 (G. A. Currie) (BMNH).
- **Bactromyia fransseni** Baranov, 1934a: 45. Lectotype 3, by designation of Crosskey (1963: 6), CEYLON: Peradeniya, 8.viii.1928, pupal par. of *Psara bipunctalis* (J. C. Hutson) (BMNH). Genitalia on slide.

Paralectotypes : 2 3, 7  $\Diamond$ , same data as lectotype (BMNH). 1 3, same data as lectotype (USNM). 1  $\Diamond$ , CEYLON : Peradeniya, 21.vi.1919, ex Nacoleia annubilala (J. C. Hutson) (BMNH). 1 3, 1  $\Diamond$ , CEYLON : Kalutara, 30.viii.1929, larval par. of Lamprosema diemenalis on Calapogonium (J. C. Hutson) (3 in USNM,  $\Diamond$  in BMNH). 3  $\Diamond$ , JAVA : Buitenzorg, 29.iii.1932, par. on Cnaphalocrocis medinalis (C. Franssen) (two in MZ, Bogor, one in USNM).

Baranov annotated the original description as follows : 'Originalfundort Java. Cotypus  $\Im$  in der Sammlung des Instituuts voor Plantenziekten in Buitenzorg. Cotypus  $\Im$  in meiner Sammlung '; nevertheless we consider that the material listed before the description is part of the syntype series, as there is no evidence to show that the description has not been partly based upon it, and we hold Crosskey's (1963 : 6) designation of a lectotype from Ceylon as valid. The female 'Cotypus ' from Java alluded to by Baranov as in his collection is now in the USNM (see list of paralectotypes above) and in fact bears a Baranov label reading 'Allotypus  $\Im$ '. We have been unable to confirm whether Baranov's male 'Cotypus' from Java with the date 29.iii.1932 is in the collection at Bogor (formerly Buitenzorg), but the slide of the male genitalia from this specimen is at present in the USNM collection.

Bactromyia fransseni solomonica Baranov, 1938a : 170. LECTOTYPE ♂, SOLOMON ISLANDS : Russell Island, vi.1932 (R. J. A. W. Lever) (BMNH). Genitalia on slide. Paralectotype : 1 ♂, same data as lectotype (USNM).

There was no evidence from the original description of *solomonica* that Baranov had more than one specimen, and Crosskey (1963 : 7) assumed that the single specimen in the BMNH collection was the holotype. It has now been found that Baranov's collection in the USNM contains a second specimen with identical data, so that present designation of a lectotype is necessary (see above). The lectotype is in poor condition with loss of one wing, several legs, and the abdomen is separately card-mounted ; Baranov's original label on the lectotype reads ' solomonicola ', but *solomonica* was the published spelling.

- Bezziomyiobia nigripes Baranov, 1938a : 172. Holotype ♀, Solomon Islands : Tulagi, 16 [publ. as 6]. xii.1934 (R. J. A. W. Lever) (BMNH).
- Blepharipoda eutachinoides Baranov, 1932a: 92. LECTOTYPE 3, FORMOSA: Sokutsu, ix.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotype : I 3, same data as lectotype (USNM).

**Cadurcia leefmansi** Baranov, 1933: 153. Holotype (as 'Protograph', figured specimen) S, JAVA: Buitenzorg, ex caterpillar of *Brachartona catoxantha* Hampson (*Leefmans*) (probably lost, whereabouts not traced, but slide-mount of genitalia in USNM).

Paratypes :  $I \stackrel{\circ}{,} I \stackrel{\circ}{,}$  same data as holotype (USNM).  $I \stackrel{\circ}{,}$  same data as holotype (MZ, Bogor).

This species was described from five specimens of both sexes (number of each not specified), of which one male was referred to by Baranov as the 'Protograph' and the other four as 'Cotypen'. The unfamiliar term 'protograph' as used by Baranov is clearly equivalent to holotype and refers to the single specimen from which the illustration of the male genitalia was drawn (after removal of the hypopygium); this specimen was stated by Baranov to be in the Instituut voor Plantenziekten in Buitenzorg, Java (now the Lembaga Pusat Penelitian Pertanian, Bogor) and the slide preparation of its genitalia in his own collection. The 'Protograph', i.e. holotype, specimen cannot now be found in this institution in Bogor, or at the Museum Zoologicum Bogoriense, and it is not among Baranov's own collection, and must be considered probably lost; but the slide of the genitalia, labelled 'Protograph', from Baranov's own collection, is present in the U.S. National Museum.

Of the 'Cotypen' specimens (i.e. paratypes) two are in USNM collection and one (a complete but teneral male) has been located in the Museum Zoologicum Bogoriense. Baranov noted in the original publication that *C. leefmansi* had earlier been identified by Bezzi as 'Degeeria albiceps Macquart', and the paratype specimens in USNM and MZ all bear this name as well as Baranov's original labels.

In an earlier work Crosskey (1963) referred to four syntypes of *Cadurcia leefmansi* in error : as noted above, there were five original specimens of which one is acceptable as holotype.

**Cadurcia vanderwulpi** Baranov, 1938b : 410. Holotype Q, INDIA : U. P., Haldwani, Chakrata Range, 4 [publ. as 18].vi.1930, ex pupa of *Hapalia machaeralis* (S. N. Chatterjee) (BMNH).

Baranov published the name *vanderwulpi* as a 'nom. nov.' for the misidentified '*Argyrophylax zetterstedti*, v. d. Wp., nec. B. B., nec Villeneuve'. It is not a replacement name for a junior homonym, but is an available name for a nominal species based upon the three-line description given by Baranov; the sole cited specimen (data above) is the holotype.

- Calotheresia (Calotheresiopsis) orientalis Baranov, 1932e : 214. Holotype J, CELEBES : Tomboekoe [publ. as Tomboegoe] (USNM). Genitalia on slide.
- Carcelia aberrans Baranov, 1931a : 27. Holotype 3, FORMOSA : Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI). Genitalia on slide.

- **Carcelia buitenzorgiensis** Baranov, 1931a: 45. Lectotype 3, by designation of Crosskey (1967b: 103), JAVA: Buitenzorg, 1919 (W. Roepke) (USNM). Genitalia on slide.
  - Paralectotypes : 2 3, same data as lectotype (BMNH & USNM : USNM specimen represented by genitalia slide only).
- Carcelia caudata Baranov, 1931a: 41. LECTOTYPE 3, FORMOSA: Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes : I 3, same data as lectotype, except date ix.1912 (USNM). I 3, FORMOSA : Toa Tsui Kutsu, v.1914 (H. Sauter) (DEI).

Carcelia caudatella Baranov, 1932d : 1. Holotype ♂, SUMATRA : Siberut Island, ix.1924 (C. B. K. & N. S.) (MZ, Bogor). Genitalia on slide.

The Baranov collection in USNM contains a male specimen of *caudatella* labelled by Baranov as 'n.sp.', but it has the data 'Karimen Djawa, v.1926 (Dammerman)' (not cited in the original publication) and is not a type-specimen.

Carcelia distincta Baranov, 1931a: 32. Holotype S, FORMOSA: Sokutsu, ix.1912 (H. Sauter) (DEI). Genitalia on slide.

At the time of writing the holotype is temporarily in the collection of Dr. L. P. Mesnil, at Delémont, Switzerland.

- Carcelia frontalis Baranov, 1931a: 43. Holotype J, FORMOSA: Toa Tsui Kutsu, v.1914 (H. Sauter) (DEI). Genitalia on slide.
- Carcelia hirsuta Baranov, 1931a : 38. LECTOTYPE J, FORMOSA : Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI). Genitalia in situ.
  - Paralectotype : 1  $\mathcal{J}$ , same data as lectotype, except date 7.vii.1912 (DEI) [abdomen missing].
- Carcelia malayana Baranov, 1934d : 404. Holotype 5, MALAYA : Malay Peninsula, Kuala Lumpur, 2.v.1932 (BMNH). Genitalia on slide.
- **Carcelia octava** Baranov, 1931a: 35. LECTOTYPE 3, FORMOSA: Koshun, Kankau, ix.1912 (H. Sauter) (DEI). Genitalia in situ. Lectotype designated from 'octava A', see discussion below.

Paralectotypes :  $I \ \varphi$ , same data as lectotype (USNM).  $3 \ \sigma$ , same data as lectotype (one in DEI, two in BMNH).  $I \ \sigma$ , same data as lectotype, except date 7.viii.1912 (USNM).  $3 \ \sigma$ , same data as lectotype, except date viii.1912 (DEI).  $I \ \sigma$ , same data as lectotype, except date 7.ix.1912 (DEI).  $2 \ \sigma$ , same data as lectotype, except date iv.1912 (DEI).  $I \ \varphi$ , same data as lectotype, except date iii.1913 (DEI).  $I \ \varphi$ , same data as lectotype, except date 22.vi.1912 (BMNH).

Baranov described *octava* in two forms, A and B. The lectotype and all above-listed paralectotypes are of ' form A ' and are so labelled by Baranov. The DEI collection contains in addition one paralectotype of ' form B ', labelled as such by Baranov, and with the same data as the lectotype, except for the date viii.1912.

Carcelia pilosa Baranov, 1931a: 29. LECTOTYPE 3, JUGOSLAVIA: Bosnia, Sarajevo (USNM). Genitalia on slide.

We have not seen the second original syntype, locality unknown to us, stated by Baranov to be in the Riedel collection, but Mesnil (1944 : 29) has noted that it is very close to *Carcelia excisa* (Fallén).

Carcelia pilosella Baranov, 1931a: 37. LECTOTYPE &, FORMOSA: Koshun, Kankau, 7.vii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes :  $I \sigma$ , same data as lectotype, except date vi.1912 (USNM).  $I \varphi$ , same data as lectotype, except date ix.1912 (DEI).

**Carcelia prima** Baranov, 1931a: 31. LECTOTYPE J, FORMOSA: Koshun, Kankau, 22.vi. 1912 (H. Sauter) (DEI). Genitalia in situ. Lectotype designated from 'prima B', see following discussion.

Paralectotypes : Form prima B : 1 Å, same data as lectotype (DEI). 1 Å, same data as lectotype, except date vii.1912 (DEI). 1 Å, same data as lectotype, except date viii.1912 (USNM). 2 Å, same data as lectotype, except date ix.1912 (USNM & BMNH). Form prima A : 1 Å, same data as lectotype (DEI). 2 Å, same data as lectotype, except date iv.1912 (DEI). 1  $\mathcal{Q}$ , same data as lectotype, except date vi.1912 (USNM). 3  $\mathcal{Q}$ , same data as lectotype, except date viii.1912 (two in DEI, one in BMNH). 1 Å, same data as lectotype, except date 7.viii.1912 (DEI). 1 Å, 2  $\mathcal{Q}$ , same data as lectotype, except date ix.1912 (DEI). 1 Å, same data as lectotype, except date 7.ix.1912 (DEI). 1 Å, same data as lectotype, except date 7.viii.1912 (DEI). 11 Å, FORMOSA : Sokutsu, ix.1912 (six in DEI, three in BMNH, two in USNM). 1 Å, 1  $\mathcal{Q}$ , FORMOSA : Taihorinsho, ix.1909 (DEI) ; 1  $\mathcal{Q}$ , same data (USNM).

In the original description Baranov treated *Carcelia prima* as two forms, *prima* A in which there are two reclinate orbital setae and *prima* B in which there is only one reclinate orbital seta ; he did not state the number of specimens of either form, but the specimens we have located and recorded above must represent most of the original syntype material for both forms. In a later paper Baranov (1934d : 396-397) considered A and B to be distinct species and he retained the name *prima* for the species represented by B; we have therefore selected a specimen of form B as the lectotype of *Carcelia prima* (see above). Baranov (1934d) treated his form A in synonymy with *Eucarcelia kockiana* (Townsend), but we are not able to say at this time whether this is correct.

We have not seen the specimen of *prima* A from Tsingtau cited by Baranov in the original publication, but this will be another paralectotype if it is ever located.

It should be noted that the female paralectotype from Taihorinsho in the DEI collection is wrongly associated and has the hind coxa bristled and a ventral submedian seta on the middle tibia (in all the other material the hind coxa is bare and the mid tibia lacks a v submedian seta). The lectotype, all paralectotypes from *prima* B, and most of the paralectotypes from *prima* A, have the basicosta a clear yellow-orange colour, but in some of the paralectotypes of *prima* A the basicosta is darker and distinctly browned on the fore margin (so it is possible that *prima* A paralectotypes could be an admixture of specimens from two very closely allied species). The lectotype and paralectotypes of *prima* B have only one pair of reclinate orbital setae, and the paralectotypes of *prima* A have two pairs of reclinate orbital setae, but it is not fully certain, despite Baranov's (1934*d*) treatment, whether this is evidence that two species are involved.

- Carcelia quarta Baranov, 1931a : 33. Holotype &, FORMOSA : Gebiet des Sh'shastammes, v-vi.1912 (H. Sauter) (DEI). Genitalia on slide.
- Carcelia quinta Baranov, 1931a: 33. LECTOTYPE J, FORMOSA: Koshun, Kankau, ix.1912 (H. Sauter) (DEI). Genitalia in situ. Lectotype designated from 'quinta A', see discussion below.

Paralectotypes : 1 3, same data as lectotype, except date 7.xi.1912 (BMNH). 1 3, same data as lectotype, except date 22.vi.1912 (USNM). 1 3, same data as lectotype, except date vi.1912 (DEI).

Baranov described *quinta* in two forms, A & B, defined by differences in the relative widths of the interfrontal area and parafrontals; the number of original specimens of each form was not stated, but so far as we can tell the four specimens cited above form the complete type-series for both forms. The lectotype and each of the paralectotypes in USNM and BMNH is labelled by Baranov as '*quinta* A', and the paralectotype in DEI collection is labelled by Baranov as '*quinta* B'.

## Carcelia rasella Baranov, 1931a: 44. LECTOTYPE 3, JUGOSLAVIA: Serbia, Golubac. I.V.1927 (USNM). Genitalia on slide.

Paralectotypes : 2 3, same data as lectotype (USNM).

- Carcelia rasoides Baranov, 1931a: 42. LECTOTYPE &, FORMOSA: Koshun, Kankau, 22.vi.1912 (H. Sauter) (DEI). Genitalia on slide. Paralectotypes: 1 &, same data as lectotype (DEI). 2 &, same data as lectotype, except date ix.1912 (DEI & BMNH).
- Carcelia rufa Baranov, 1931a : 33. LECTOTYPE ♂, FORMOSA : Macuyama, vi.1914 (H. Sauter) (DEI). Genitalia in situ. Paralectotypes : 3 ♂, FORMOSA : Koshun, Kankau, 7.v.1912 (H. Sauter) (DEI, USNM & BMNH) ; 1 ♀, same data (DEI). 1 ♂, FORMOSA : Koshun, Kankau, 22.vi.1912 (H. Sauter) (DEI) ; 1 ♀, same data (USNM).
- **Carcelia rutilloides** Baranov, 1931a: 29. Holotype Q, FORMOSA: Chosokei, 1914 (H. Sauter) (DEI).
- Carcelia secunda Baranov, 1931a: 31. Holotype 3, Formosa: Sokutsu, ix.1912 (H. Sauter) (DEI). Genitalia on slide.
- Carcelia septima Baranov, 1931a: 35. LECTOTYPE S, FORMOSA: Koshun, Kankau, viii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes : I ♂, same data as lectotype (USNM). I ♀, same data as lectotype (BMNH). I ♀, same data as lectotype, except date ix.1912 (DEI).

- Carcelia setosella Baranov, 1931a : 44. Holotype 3, Formosa : Sokutsu, v.1912 (H. Sauter) (DEI). Genitalia on slide.
- Carcelia sexta Baranov, 1931a: 34. Holotype 3, FORMOSA: Taihorinsho, ix.1909 (H. Sauter) (DEI). Genitalia on slide.
- Carcelia tertia Baranov, 1931a : 32. Holotype 3, FORMOSA : Taihorinsho, ix.1909 (H. Sauter) (DEI). Genitalia on slide.
- Catacarcelia rondaniella Baranov, 1934d: 392. LECTOTYPE S, FORMOSA: Koshun, Kankau, 7.vii.1912 (H. Sauter) (USNM). Genitalia on slide.

Paralectotypes : I  $\mathcal{J}$ , FORMOSA : Takao, 19.xii.1907 (*H. Sauter*) (USNM). I  $\mathcal{Q}$ , same data as lectotype (USNM).

The two paralectotypes each bear a label with the manuscript name 'Exorista carcelioides Baranov n.sp. ' and a second label 'Carcelia rondaniella n.sp. N. Baranoff ', both in Baranov's writing.

- Chaetexorista solomonensis Baranov, 1936: 101. Holotype J, SOLOMON ISLANDS: Shortland, Korovo, 23.iv.1934 (H. T. Pagden) (BMNH). Genitalia in situ.
- Chaetoptiliopsis burmanica Baranov, 1938b: 411. Holotype J, BURMA: Northern Shan States, Panghai Res., Namtu, R.O., 26.v.1934, ex C. [alopepla] leayana (BMNH). Genitalia in situ.

Paratype : 1 9, same data as holotype, except date 25.v.1934 (BMNH).

The USNM Collection contains a male and a female from the same rearing, with similar data except for the date 28.v.1934, but these are not recorded in the original description and are not type-material.

Senior White, Aubertin & Smart (1940 : 82) erroneously placed this genus and species in the Calliphoridae.

- **Cnephalia sillemi** Baranov, 1935c: 407. Holotype 3, CHINA: Sinkiang, Karakorum Range, Karakash Valley, between Kawak Pass and Sanju Pass [approx. 36° 30' N. and 78° 15' E.], 3700–3200 m, 16.ix.–5.x.1929 (J. A. Sillem) (Zoölogisch Museum, Amsterdam). Genitalia in situ.
- Ctenophoroceropsis yerburyi Baranov, 1938b : 409. Holotype J, South YEMEN REPUBLIC : Aden, 21.ii.1895 (Yerbury) (BMNH). Genitalia in situ.

Paratypes : 1 3, same data as holotype (BMNH). 2 3, same data as holotype, except dates 9.ii.1895 and 26.ii.1895 (BMNH) (both headless). 1 3, same data as holotype, except date 20.ii.1895 (USNM).

**Dexiomimops rufipes** Baranov, 1935a: 557. Holotype S, JAPAN: Maoka, Karafuto, 21.viii.1923 (S. Takano) (USNM). Genitalia in situ.

The Baranov collection in USNM contains two males from Formosa (no other data) that are here not considered to be part of the type-series. After listing the type, Baranov stated 'Auch von Formosa mir bekannt', without giving details and without clearly including the specimens in his type-series.

- **Doleschalla solomonensis** Baranov, 1934b: 182. Holotype 3, Solomon Islands: Guadalcanal, Lunga, iv.1932 (R. J. A. W. Lever) (BMNH). Genitalia in situ.
  - Paratypes : 1 5, SOLOMON ISLANDS : Tulagi, 23.vii.1933 (R. J. A. W. Lever) (BMNH) ; 1 5, same data, except date 30.vii.1933 (USNM).

Baranov (1934c: 475), in a second paper in the same month (August 1934), published records of four males of *D. solomonensis*, giving two localities not mentioned for the original series; these males appear to be additional material, and are presumed to be not type-material. In this second paper (Baranov, 1934c) there is a figure of the male genitalia, but no diagnosis in words, and under the *International Code of Zoological Nomenclature*, 1961 (Article 13a (i)) the name *solomonensis* would be nomenclaturally unavailable from this second paper even if it should be found to be the earlier of the two publications.

- **Dolichocolon australe** Baranov, 1938b : 405. LECTOTYPE 3, AUSTRALIA : Queensland, Gympie, iii.1932, ex Spodoptera exempta (W. H. T. Summerville) (BMNH). Genitalia in situ. Paralectotypes : 1 &, same data as lectotype (BMNH). 1 3, 1 &, same data as lectotype (USNM). 2 &, AUSTRALIA : Queensland, Gadgarra, 6.ii.1932, ex Spodoptera (J. Harold Smith) (USNM).
- **Dolichocolon orbitale** Baranov, 1938b : 406. LECTOTYPE J, INDIA : C.P., Rahatgaon, Hoshangabad, 25.ix.1926, ex *Hapalia machaeralis* (S. N. Chatterjee) (BMNH). Genitalia in situ.

Paralectotypes : 1 3, same data as lectotype, except date 4.x.1926 (USNM). 1 3 (genitalia slide only), same data as lectotype, except date 16.viii.1926 (USNM). 1  $\Im$ , same data as lectotype, except date 16.viii.1926 (USNM). 1  $\Im$ , same data as lectotype, except date 2.x.1926 (BMNH).

Beeson & Chatterjee (1935 : 173) had already published this name, prior to Baranov's description, and had given a figure of the entire fly together with an account of the life history, but these authors gave no description and the name is therefore nomenclaturally unavailable from Beeson & Chatterjee (1935) under Article 13a (i) of the International Code of Zoological Nomenclature, 1961.

**Dolichocolon quadrisetosum** Baranov, 1935a : 555. LECTOTYPE Q, FORMOSA : Koshun, Kankau, vii.1912 (H. Sauter) (DEI).

Paralectotypes :  $I \varphi$ , same data as lectotype, except date 7.vii.1912 (DEI).  $3 \varphi$ , same data as lectotype, except date 7.viii.1912 (two in USNM, one in DEI).  $2 \Im$ , FORMOSA : Takao, 31.x. and 8.xii.1907 (*H. Sauter*) (USNM).  $I \varphi$ , FORMOSA : Takao, 8.xii.1907 (*H. Sauter*) (IZPAN, Warsaw).

We accept the two males from Takao (in USNM collection) as syntypes as they are labelled as 'n.sp.' by Baranov, but it should be noted that only the female was mentioned in the original description. We have not seen the Formosan specimen with the data 'Shinkwa, 12.iv.1932 (S. Takano)' mentioned by Baranov, but this will be another paralectotype if ever located.

**Dolichocolon rufescens** Baranov, 1938b : 406. LECTOTYPE J, AUSTRALIA : New South Wales, Yantabulla, 25.v.1916 (BMNH). Genitalia *in situ*.

Paralectotype : 1 &, same data as lectotype, except date 25.vi.1916 (Siddens) (USNM).

**Echinomyia praeceps aestivalis** Baranov, 1929a : 14. LECTOTYPE Q, JUGOSLAVIA : Macedonia, Kavadar, 15.vi.1927 (USNM).

Paralectotypes : 1  $\Re$ , same data as lectotype, except date 19.vii.1927 (USNM). 1  $\Im$ , same data as lectotype, except date 5.vii.1927 (CNC). 1  $\Im$ , same data as lectotype, except date 5.vii.1927 (USNM). 1  $\Im$ , JUGOSLAVIA : Macedonia, Skoplje, 11.ix.1928 (CNC).

We accept Baranov's 'cotypus' specimens from Kavadar with the date 5.vii.1927 as paralectotypes, but it should be noted that in the original publication Baranov cited this date for specimens from Skoplje : we consider that Baranov probably made a slight error in recording the data. Baranov noted specimens from Belje (22.vi.-5.vii.1923), Bitol (9.ix. 1928) and Struga (7.ix.1928) in the original publication but none of these have been located ; they will be additional paralectotypes when found.

**Echinomyia praeceps vernalis** Baranov, 1929a: 13. LECTOTYPE J, JUGOSLAVIA: Serbia, Golubac, 9.v.1927 (USNM). Genitalia *in situ*.

Paralectotypes : 2 3, same data as lectotype (USNM & CNC).

The specimens from Skoplje (14.iv. & 17.v.1927) and Topčider (8 & 14.v.1924) mentioned in the original publication have not been located, but will be additional paralectotypes if later found.

**Erycia bezzii** Baranov, 1934a : 44. LECTOTYPE 9, MALAVA : Kuala Lumpur, 24 [publ. as 29].viii.1931, ex *Telicota palmarum* Moore (BMNH).

Paralectotype : 1 9, same data as lectotype (USNM).

There was no evidence from the original description of *bezzii* that Baranov had more than one specimen, and Crosskey (1967b : 103) cited the specimen in BMNH collection as holo-type. It has now been found that Baranov's collection in USNM contains a second specimen with identical data, so that present designation of a lectotype is necessary (see above).

- **Erycia intermedia** Baranov, 1939 : 111. Holotype Q, JAPAN : Hokkaido, Sapporo, 13.viii. 1923 (*K. Tamanuki*) (USNM).
- Erycia nigricosta Baranov, 1936: 99. Holotype S, SOLOMON ISLANDS: Guadalcanal, Kaukau [publ. as Kankau], 22.viii.1934 (R. J. A. W. Lever) (BMNH). Genitalia on slide.
- **Erycia nymphalidophaga** Baranov, 1936:112. LECTOTYPE J, INDIA: U.P., Dehra Dun, 5.X.1929, ex nymphalid on Citrus aurantium (N. C. Chatterjee) (BMNH). Genitalia in situ.
  - Paralectotypes :  $3 \varphi$ , same data as lectotype, except dates 6, 10 and 11.x.1929 (BMNH). 1  $\varphi$ , same data as lectotype, except date 10.x.1929 (USNM).

Beeson & Chatterjee (1935: 174) published this name prior to Baranov's description, but gave only a three-line note on the life history and no description; the name is nomenclaturally unavailable from Beeson & Chatterjee (1935) under Article 13a (i) of the *International Code of Zoological Nomenclature*, 1961.

- **Erycia palpata** Baranov, 1936 : 113. Holotype  $\mathcal{Q}$ , Formosa : Toa Tsui Kutsu, v.1914 (H. Sauter) (USNM).
- **Erycia rufofemorata** Baranov, 1936 : 112. Holotype  $\Diamond$ , JAVA : Buitenzorg, ii.1933 (*R. W. Paine*) (BMNH).

Paratype : 1 9, same data as lectotype, except date i.1933 (USNM).

- **Erycia takanoi** Baranov, 1939 : 111. LECTOTYPE ♂, JAVA : Pasoeroean, iii.1926 (S. *Takano*) (USNM). Genitalia *in situ*. Paralectotype : 1 ♀, same data as lectotype (USNM).
- **Eucarcelia caspica** Baranov, 1934d: 390. Holotype &, ? U.S.S.R. or IRAN: Caspian Sea region, Talysch [? = Talish], 1897 (Korb) (USNM). Genitalia on slide.
- **Eucarcelia dammermani** Baranov, 1934d : 393. LECTOTYPE J, JAVA : Idjen, 1850 m, Ongop-Ongop, v.1924 (*Dammerman*) (USNM). Genitalia on slide. Paralectotype : 1 Q, same data as lectotype (MZ, Bogor).
- **Eucarcelia grossa** Baranov, 1934d: 393. Holotype S, FORMOSA: Tainan, iv.1910 (H. Sauter) (USNM). Genitalia on slide

- **Eucarcelia indica** Baranov, 1934*d* : 394. Holotype J, INDIA : Silhar Kalhar, 27.vi.1911 (USNM). Genitalia on slide, head missing.
- **Eurystaea leveriana** Baranov, 1934b : 182. Holotype  $\mathcal{Q}$ , Solomon Islands : Malaita, Su'u, iv.1933 (R. J. A. W. Lever) (BMNH).
- Eutachina argenteostriata Baranov, 1938a: 171. Holotype Q, SOLOMON ISLANDS: Guadalcanal, Kovagombi, 1.V.1936 (R. J. A. W. Lever) (BMNH).
- Eutachina aureifrons aureifrons Baranov, 1936: 107. LECTOTYPE J, JAVA: Idjen, Kendeng, 1400 m, iii.1924 (Dammerman) (MZ, Bogor). Genitalia in situ.

Paralectotype : 1 J, JAVA : Idjen, Blawan, 950 m, vi.1924 (Dammerman) (USNM).

In the original description Baranov cited the locality simply as 'Java' without additional data, and stated 'Typus im Zoologischen Museum in Buitenzorg'. The collection of the Zoological Museum in Bogor contains one male specimen but it is actually labelled as 'Para-typus', and the male specimen in USNM collection is labelled as 'Typus'; however, the slide preparation of the genitalia from the USNM collection is labelled as 'Cotypus' and not as 'Typus'. We consider that the two males are syntypes, and the specimen in MZ, Bogor has been designated as lectotype to conform with Baranov's statement of the depository.

The USNM collection contains a female specimen with the same data as the lectotype (except that the date is given ambiguously as both iii and vi), but as only the male sex was mentioned in the description and as the female specimen is labelled as 'aureifrons mihi N. Baranoff' (i.e. not with an original 'n.sp. 'label) we consider that it is not an original syntype.

- Eutachina aureifrons sumatrana Baranov, 1936: 107. LECTOTYPE &, SUMATRA: Selemoekae, viii.1925 (O. Posthumus) (USNM). Genitalia on slide.
  - Paralectotype : 1 3, SUMATRA : Goen-mongko, 7.viii.1925 (O. Posthumus) (USNM).
- Eutachina aureisquamosa Baranov, 1938b: 410. Holotype J, SOLOMON ISLANDS: Guadalcanal, Oreke, 700 ft., 14.xii.1934 (R. J. A. W. Lever) (BMNH). Genitalia in situ.
- **Eutachina aurichalcea** Baranov, 1936 : 100. Holotype  $\mathcal{Q}$ , BOUGAINVILLE ISLAND : Kieta, v.1934 (*J. L. Froggatt*) (BMNH).
- **Eutachina basalis** Baranov, 1932a: 86. Holotype J, FORMOSA: Koshun, Kankau, ix.1912 (H. Sauter) (DEI). Genitalia on slide.
- **Eutachina civiloides** Baranov, 1932a : 84. LECTOTYPE S, FORMOSA : Koshun, Kankau, vii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes :  $I \stackrel{\circ}{\rightarrow}, I \stackrel{\circ}{\rightarrow}, same data as lectotype, except date 7.viii.1912 (USNM & DEI).$ 

**Eutachina fuscipennis** Baranov, 1932a: 90. LECTOTYPE J, FORMOSA: Koshun, Kankau, viii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes : I 3, same data as lectotype (USNM). I 3, same data as lectotype, except date iv.1912 (DEI).

The DEI collection contains two females from Kankau, date ix.1912, determined by Baranov as *fuscipennis*, but these are not part of the original type-series.

**Eutachina hyalipennis** Baranov, 1932a: 88. LECTOTYPE 3, FORMOSA: Chipun, vii. 1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes : 1 J, FORMOSA : Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI) ; 1 J, same data, except date ix.1912 (USNM).

A female specimen determined by Baranov as *hyalipennis* and having similar data (Kankau, vi.1912) is in DEI collection but is not an original syntype.

**Eutachina ladelli** Baranov, 1936: 108. Holotype J, THAILAND: Hua Hin, iv.1926 (W. R. S. Ladell) (BMNH). Genitalia on slide.

**Eutachina mungomeryi** Baranov, 1938b: 410. LECTOTYPE 3, AUSTRALIA: Queensland, Gordonvale, 2.iii.1936, ex Laphygma exempta Walker (R. W. Mungomery) (BMNH). Genitalia in situ.

Paralectotypes :  $I \ \varphi$ , same data as lectotype (BMNH).  $I \ \delta$ , same data as lectotype (USNM).  $I \ \varphi$ , same data as lectotype, except collector (*I. W. Buzacott*) (USNM).

**Eutachina quadriseta** Baranov, 1932a: 91. Holotype J, FORMOSA: Sokutsu, ix.1912 (*H. Sauter*) (DEI). Genitalia on slide.

Baranov (1938a: 171) later recorded specimens from the Solomon Islands as *Eutachina* quadrisetosa Bar. and compared them with Formosan quadrisetosa, but this is a lapsus and clearly an erroneous subsequent spelling of quadriseta Baranov.

**Eutachina rusticella** Baranov, 1936: 108. LECTOTYPE J, FORMOSA: Takao, 28.xi.1907 (H. Sauter) (IZPAN, Warsaw). Genitalia on slide.

Paralectotypes : I 3, same data as lectotype (USNM). I 3, SUMATRA : [no other locality data] 8.ix.1930 (USNM : genitalia preparation only).

In the original description Baranov recorded 'Sumatra (Imperial Institute of Entomology)' among the original material seen, and there must therefore have been at least one syntype from Sumatra. We have been unable to locate a complete specimen from Sumatra, but the Baranov collection in USNM contains a slide preparation of the male genitalia of a specimen of *rusticella* labelled by Baranov as from Sumatra, with the date 8.ix.1930, and with the abbreviated words 'Imper. Inst.', and we consider this slide to confirm that there was at least a male syntype from Sumatra ; we therefore record it above as one of the paralectotypes. Tachinid material handled by Baranov from the Imperial (now Commonwealth) Institute of Entomology was normally deposited in the British Museum (Natural History) collection or returned to the sender, but in this case (as the body of the syntype has not been found) the genitalia slide preparation is retained in the USNM collection, whence it can be returned if the associated specimen is found.

The USNM collection also contains a male specimen of *rusticella* from the same locality as the lectotype, but with the date 6.xii.1907; this date does not fit with the original published data and the specimen is considered not to be a syntype.

**Eutachina tenuiforceps** Baranov, 1932a: 87. Holotype J, FORMOSA: Koshun, Kankau, vii.1912 (H. Sauter) (DEI). Genitalia on slide.

The DEI collection contains three females from Kankau determined by Baranov as *tenuiforceps*, but this species was described only from the male and these females are not original type-material (though listed as 'Typen' by Hennig, 1941 : 194).

- **Euthelairosoma siamense** Baranov, 1938b: 411. Holotype J, THAILAND: Siam [also bearing some other undecipherable data] (BMNH). Genitalia *in situ*.
- **Euvespivora orientalis** Baranov, 1942: 162. Holotype 3, JAVA: Delawa, 10.V.1937, teak forest ex larva of Vespa analis (L. G. E. Kalshoven) (USNM). Genitalia in situ.
- **Euvespivora salomonica** Baranov, 1942 : 163. Holotype Q, Solomon Islands : Tulagi, 17.ii.1938 (R. J. A. W. Lever) (BMNH).
- **Exorista distincta** Baranov, 1931b: 120. LECTOTYPE J, FORMOSA: Koshun, Kankau, 7.xi.1912 (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes : I ♂, same data as lectotype (USNM). I ♂, same data as lectotype, except date 7.viii.1912 (BMNH). 2 ♀, same data as lectotype, except date 7.viii.1912 (DEI & USNM). I ♀, same data as lectotype, except date ix.1912 (BMNH).

In the original publication Baranov mentioned a total of five specimens (23, 39) but did not mention the month date 'xi'. We have traced a total of six specimens (see above), two of which have the month date 'xi'; all are labelled as 'n.sp.' by Baranov and we consider all to be original syntypes. We consider the discrepancies to be due to inadvertent lapse by Baranov in recording the material.

**Exorista phrynoides** Baranov, 1939: 110. Holotype S, JAPAN: Hokkaido, Sapporo, 22.vi.1924 (S. Takano) (USNM). Genitalia in situ.

**Exorista picta** Baranov, 1935a : 553. LECTOTYPE 3, FORMOSA : Koshun, Kankau, 7.vii.1912 (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes :  $I \ \varphi$ , same data as lectotype (BMNH). 2  $\Im$ , same data as lectotype, except date ix.1912 (DEI & USNM). 2  $\varphi$ , same data as lectotype, except date ix.1912 (DEI). 1  $\Im$ , same data as lectotype, except date vii.1912 (DEI). 1  $\Im$ , same data as lectotype, except date 4.viii.1912 (USNM). 1  $\Im$ ,  $I \ \varphi$ , same data as lectotype, except date 7.viii. 1912 (BMNH). 1  $\varphi$ , same data as lectotype, except date 7.xi.1912 (USNM). 3  $\varphi$ , FORMOSA : Tainan, v.1912 (H. Sauter) (DEI). 1  $\varphi$ , FORMOSA : Shinkwa, 19.vi.1932 (S. Takano) (USNM).

**Exorista quadrimaculata** Baranov, 1934a: 43. Lectotype 5, by designation of Crosskey (1967b: 104), MALAYA: Klang, 9.ii.1931 (BMNH). Genitalia in situ.

Paralectotypes : I Q, same data as lectotype (BMNH). I J, I Q, MALAYA : Estate K. Lipis, 30.iv.1931, host Psychidae ? *Clania variegata* (G. H. Corbett) (USNM). I J, SUMATRA : E.C., Pematang Siantar, 13.i.1932 (R. I. Nel) (BMNH) ; I J, same data, except date 21.xi. 1931 (USNM). I J, CEYLON : Ratnapura, 27.vi.1922, ex psychid (J. C. Hutson) (BMNH).

Although Baranov headed the original description of *quadrimaculata* with a ' $\mathfrak{F}$ ' sex symbol only, we have accepted two female specimens as part of the original syntype series and have listed them as paralectotypes above. Our reasons for this are, firstly, that these females have similar data to the males and bear Baranov's usual type of 'n.sp.' label; and, secondly, that elsewhere in the same paper Baranov has introduced a note on the 'Weibchen' in descriptions headed ' $\mathfrak{F}$ ' only, in such a way that the descriptions *appear* to be based only on the male but were actually drawn from both sexes. We therefore infer that Baranov had both sexes before him but that the symbol ' $\mathfrak{P}$ ' was inadvertently omitted.

Exorista seniorwhitei Baranov, 1938b: 408. Holotype J, INDIA: [Assam] Khasia Hills, Mawphlang [publ. as Mauphlong], 10.x.1920 (R. Senior-White) (BMNH). Genitalia in situ. Paratype: 1 J, INDIA: [Assam, Khasia Hills] Laitlyngkot, 16.x.1920 (R. Senior-White) (USNM).

The localities of the type-material are not easy to trace in atlases, but are mentioned by Senior-White (1922) in his paper on the Diptera of the Khasia Hills.

**Exorista vicinalis** Baranov, 1931b: 123. LECTOTYPE 3, FORMOSA: Koshun, Kankau, viii [publ. as vii].1912 (H. Sauter) (USNM).

Paralectotype : 1 9, same data as lectotype (USNM).

The lectotype lacks the genitalia and the slide preparation has not been located.

Fabriciella pandellei Baranov, 1929a : 19. LECTOTYPE J, JUGOSLAVIA : Bosnia, Trebevie (USNM). Genitalia in situ.

Paralectotype : 1 3, JUGOSLAVIA : Croatia, Sejeme, 19. vi. 1918 (USNM).

In addition to the two specimens above mentioned the USNM collection contains a male specimen with data 'Sejeme, Croatia, 2.viii.1929', but this is not considered to be an original syntype ; Baranov's description mentions only specimens with month dates 'VI.-VII.' and collection in August would probably be too late for citation of the material in a paper published in the same year.

Formosia mirabilis solomonicola Baranov, 1936: 101. LECTOTYPE J, SOLOMON ISLANDS: Guadalcanal, Kaukau [publ. as Kankau], 21.viii.1934 (R. J. A. W. Lever) (BMNH). Genitalia in situ.

Paralectotypes : I  $\mathcal{Q}$ , BOUGAINVILLE [publ. as Guadalcanal] : Kieta, v.1934 (*J. L. Froggatt*) (BMNH). I  $\mathcal{Z}$ , I  $\mathcal{Q}$ , SOLOMON ISLANDS : New Georgia, Segi, Morovo Lagoon, 5.v.1934 (*H. T. Pagden*) (USNM). I  $\mathcal{Q}$ , SOLOMON ISLANDS : Tulagi, Ridge, 31.iii.1934 (*H. T. Pagden*) (BMNH). I  $\mathcal{Q}$ , SOLOMON ISLANDS : Montgomery, Tetipari, 12.v.1934 (*H. T. Pagden*) (BMNH). I  $\mathcal{Q}$ , SOLOMON ISLANDS : Isabel [publ. as Isabbel], iii.1932 (*R. J. A. W. Lever*) (BMNH).

We have not seen the specimens (other paralectotypes from Solomon Islands) mentioned by Baranov with the data 'Renodova, 14.v.1934, leg. H. T. Pagden ' and 'Calwel, i.1932 ' (a  $\Im$  and  $\Im$  respectively), and their location is unknown to us. Goniophthalmus dubiosus Baranov, 1936a: 555. LECTOTYPE S, JAVA: Pasoeroean, 10.iii.1926 (S. Takano) (USNM). Genitalia in situ.

Paralectotype : I, same data as lectotype (USNM).

There is a female specimen in the USNM collection labelled as new species but with the data 'Dammerman N.O. Soemba, Kambera, 4.iii.1925'. No such specimen is mentioned in the original description and it is not a syntype.

**Gymnodexia atkinsoni** Baranov, 1934a: 49. LECTOTYPE J, BURMA: Maymyo, Mandalay District, 13.vi.1930, ? ex Curculionidae, on *Phyllanthus emblica* (D. J. Atkinson) (BMNH). Genitalia in situ.

Paralectotypes :  $I \sigma$ , same data as lectotype (USNM).  $I \sigma$ ,  $I \varphi$ , same data as lectotype, except dates 8.vi. and 17.vi.1930 respectively (BMNH).

Although Baranov headed the original description of *athinsoni* with a ' $\delta$ ' sex symbol only, we have accepted one female specimen as part of the original syntype series and have listed it above as a paralectotype. Our reasons for this are, firstly, that the specimen has identical data with the lectotype (except for slight difference in date) and bears the usual type of Baranov 'n.sp.' label; and, secondly, that elsewhere in the same paper Baranov has introduced a note on the 'Weibchen ' in descriptions headed ' $\delta$ ' only, in such a way that the descriptions *appear* to be based only on the male but were actually drawn from both sexes. We therefore infer that Baranov almost certainly had the female before him at the time of description, and accept it as an original syntype (see similar situation discussed under *Exorista quadrimaculata* Baranov).

- Hapalioloemus machaeralis Baranov, 1934f: 162. Holotype 3, INDIA: C.P., Rahatgaon, 7.viii.1926 (S. N. Chatterjee) (BMNH). Genitalia in situ.
- Hemidegeeria villeneuvei Baranov, 1934a : 44. LECTOTYPE 3, BURMA : Shwegu Res., Bhamo, 25.iii.1930, ex Acacia pruinescens (D. J. Atkinson) (BMNH). Genitalia in situ.

Paralectotypes :  $3 \ \varphi$ , same data as lectotype, except dates 29.iii., 27.iv. and 24.v.1930 (BMNH). I  $\Diamond$ , I  $\varphi$ , same data as lectotype, except dates 1.iv. and 21.iv.1930 respectively (USNM). I  $\varphi$ , same data as lectotype, except date 3.iv.1930 (USNM).

Illa mirabilis Baranov, 1938a : 172. Holotype  $\mathcal{Q}$ , Solomon Islands : Guadalcanal, Lunga Estate, 4.vi.1935 (R. J. A. W. Lever) (BMNH).

The USNM collection contains a specimen of this species bearing the label 'Illa mirabilis g.n. sp.n. N. Baranoff ' in Baranov's writing, but it is not mentioned in the original publication and is not a type-specimen. The data are : Q, SOLOMON ISLANDS : Savo Island, Tasimania, 500-700 ft., 24.vi.1935 (*R. J. A. W. Lever*).

Isocarceliopsis hemimacquartioides Baranov, 1934d : 406. LECTOTYPE 3, FORMOSA : Toa Tsui Kutsu, v.1914 (H. Sauter) (DEI).

Paralectotypes : 2 3, FORMOSA : Takao, 8.xii.1907 (*H. Sauter*) (IZPAN, Warsaw) ; 1 3, same data, except date 21.xii.1907 (USNM) ; 1 3, same data, except date 6.xii.1907 (BMNH). In addition the following paralectotypes that are not conspecific with the lectotype (see discussion) : 2 3, FORMOSA : Tainan, iv.1910 (*H. Sauter*) (DEI & USNM).

It is not clear from the format in the original publication how many specimens were available to Baranov at the time of description, for he cited only the following information : 'FORMOSA : einige Exemplare im Deutschen Entomologischen Institut in Berlin-Dahlem.—Tainan, iv.1910 und Takao, xii.1907 (*H. Sauter*) ; Museum in Stettin '. Normally this punctuation would indicate in Baranov's work that he saw some specimens in the DEI collection from unspecified localities, and also specimens in Stettin from Tainan and Takao ; in fact the Stettin collection (now in Warsaw) contains specimens only from Takao, and the DEI collection contains specimens from Tainan and Toa Tsui Kutsu (a locality not actually cited by Baranov at the time of description, but recorded later by Hennig, 1941 : 198 as the locality of one of Baranov's types). In addition there are specimens from Baranov's own collection that are now in the USNM or BMNH collections, and altogether we have located seven specimens (all males) that we consider to be original syntypes and have listed above ; these include the specimen from Toa Tsui Kutsu which we consider to be one of 'einige Exemplare', and have selected as lectotype.

It is important to note that *hemimacquartioides* type-material is mixed, and consists of two very closely similar species : in one species the male head is without proclinate orbital setae and the scutellum has small upwardly-directed crossed apical setae, and in the second species the male head has two pairs of proclinate orbital setae and the scutellum lacks apical setae. The latter species, because of the proclinate orbital setae, has the male head extremely like that of the normal female Tachinid in which these setae are present, and we think that Baranov cited 'Q' as well as ' $\mathfrak{F}$ ' at the head of the description of *hemimacquartioides* in error (as we have found no female specimens among the syntypes). In the original description Baranov wrote of the scutellum that 'Die gekreuzten, aufgerichteten Apikalborsten sind fein ', and we have therefore selected the lectotype from specimens showing this character (i.e. from the species in which the male lacks the proclinate orbital setae). The specimens in which the male possesses proclinate orbital setae are both from the Tainan locality cited in the original description ; one is in the DEI collection and the other in USNM (see above).

The lectotype lacks the genitalia and the slide preparation has not been located. However, it may be noted that the conspecific male paralectotypes from Takao in the USNM and BMNH collections are both intact, and that although both males from Takao in the IZPAN collection at Warsaw are without genitalia there is a slide preparation in that collection that must associate with one of the two specimens.

Kosempomyiella rufiventris Baranov, 1934f: 165. LECTOTYPE 3, FORMOSA: [no other locality data] (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes :  $2 \sigma$ , same data as lectotype, but with month date 'i' (USNM).  $4 \varphi$ , FORMOSA : Kosempo, v.1912 (*H. Sauter*) (DEI, two ; BMNH ; USNM).

Baranov's original description reads as though all syntypes (number unstated) of both sexes were from Kosempo, but the specimen bearing his red handwritten 'Typus' label (here designated as lectotype) has no locality data other than 'Formosa I. '; only the female syntypes have the locality Kosempo on the data labels. Since there is more than one male, and none from Kosempo that we have been able to locate, Townsend's (1938:41) citation of 'Ht male' does not provide a valid fixation of a lectotype.

- Leiosiopsis maculibasis Baranov, 1935a: 553. Holotype J, JAPAN: Hokkaido, Sapporo (S. Takano) (USNM). Genitalia in situ.
- Leverella institutiimperialis Baranov, 1934c: 474. Lectotype 3, by fixation of Townsend (1939: 43), SOLOMON ISLANDS: Guadalcanal, Doma, iii.1933 (R. J. A. W. Lever) (BMNH). Genitalia on slide.

Paralectotype : I, same data as lectotype (and mounted on same pin) (BMNH).

The original material consists of one male and one female syntype, of which Townsend (1939: 43) cited the male as 'Ht' (= holotype) and the female as 'At' (= allotype). Townsend's action restricts the name to a single primary type, and we accept it as providing valid fixation of a lectotype.

- Leverella novaeguineae Baranov, 1934c: 474. Holotype J, Indonesian New Guinea (West Irian) : Fakfak (USNM). Genitalia on slide.
- Macrozenillia townsendi Baranov, 1935a : 553. Holotype 3, Formosa : Sokutsu, ix.1912 (H. Sauter) (DEI).

Paratype : 1 3, JAPAN : Hokkaido, Hattaribetsu, 27.vii.1924 (S. Takano) (USNM). The holotype lacks the genitalia and the slide preparation has not been located.

Masicera oculata Baranov, 1935a : 554. Holotype Q, FORMOSA : Koshun, Kankau, 7.vii. 1912 (H. Sauter) (DEI).

Paratypes : 2 3, same data as lectotype, except dates vii. and 7.viii.1912 (USNM). 1 3, FORMOSA : Shinkwa, 3.vii.1926 (S. Takano) (USNM).

In the original publication there is definite reference only to specimens of *oculata* from Formosa, but Baranov added that the species was known to him from Java and South India ('Auch von Java mir bekannt aus *Baoris bada* Moore gezüchtet und aus Südindien aus *Plusia* sp. gezogen '). We have not located any specimens from these additional localities that could have been seen by Baranov, but we consider that they would in any case be without type status (as there is no evidence that they were available to Baranov at the time of description).

Meigenia mutabilis nobilis Baranov, 1926b : 168. LECTOTYPE J, JUGOSLAVIA : Serbia, Golubac, 30.iv[publ. as vi].1925 (USNM). Genitalia on slide.

The original publication shows no evidence of how many specimens Baranov saw at the time of description, but the single male of *nobilis* in Baranov's collection conforming to the original data bears a red Baranov label reading 'Typi '; we deduce from this that he had more than one original specimen, and accordingly designate the available specimen as lectotype.

Meigenia mutabilis pilosa Baranov, 1926b : 168. Holotype 3, JUGOSLAVIA : Serbia, Golubac, 24.vi.1925 (USNM). Genitalia on slide.

There is no evidence that the original type-material of subspecies *pilosa* consisted of more than one specimen, and the male in the USNM collection having the data as published by Baranov is considered to be the holotype.

Meigenia mutabilis vulgaris Baranov, 1926b : 168. LECTOTYPE &, JUGOSLAVIA : Serbia, Golubac, 30.iv.1925 (USNM). Genitalia on slide.

Paralectotype : 1 9, same data as lectotype, except date 12.vi.1925 (USNM).

We have not located any syntype with the data 'Topčider, 9.v.1924' that Baranov recorded in the original publication.

- Micropalpus vulpinoides Baranov, 1932d : 2. LECTOTYPE J, SUMATRA : Deli, Siriaria 2.viii.1928 (J. C. v. d. Meer Mohr) (MZ, Bogor). Genitalia on slide. Paralectotype : 1 J, same data as lectotype (USNM).
- Monoleptophaga caldwelli Baranov, 1938b : 412. LECTOTYPE J, AUSTRALIA : Queensland, Nambour [70 mi. North of Brisbane], x.1937, ex Monolepta rosea adult (N. E. H. Caldwell) (BMNH). Genitalia in situ.

Paralectotypes ; 2, same data as lectotype (BMNH & USNM). 4, 4, 4, same data as lectotype (Dept. of Primary Industries Coll., Brisbane, Queensland).

Myiobia bezziana Baranov, 1938b: 411. LECTOTYPE &, INDIA: Bengal, Darjeeling, 5000 ft., 1923, (J. C. M. Gardner) (BMNH). Genitalia in situ.

Paralectotypes : 2  $\varphi$ , same data, except date 7.vii.1923 (BMNH) ; 1  $\Im$ , same data as lectotype, except host *Zeuzera multistrigata* given (USNM) ; 1  $\varphi$ , same data, except date ii.1923 (USNM).

Baranov did not state the number or sex of his original specimens, but gave the date as 16.viii.1923. We consider all the above-listed specimens to be original syntypes, but it should be noted that none of them bears the day and month date '16.viii' cited in the original publication.

Beeson & Chatterjee (1935: 177) published this name before Baranov's description, but gave only four lines on the life history and no description; the name is nomenclaturally unavailable from Beeson & Chatterjee (1935) under Article 13a (i) of the *International Code of Zoological Nomenclature*, 1961.

**Myiofijia bezziana** Baranov, 1934c: 478. LECTOTYPE 3, FIJI: Taveuni, ii.1934, bred from host moth larva in coconut tree (*R. W. Paine*) (BMNH). Genitalia *in situ*.

Paralectotypes :  $I \stackrel{*}{,} I \stackrel{\circ}{,}$  same data as lectotype (USNM).  $I \stackrel{*}{,}$  same data as lectotype, except date i.1934 and 'bred from host cocoon in coconut' (USNM).  $I \stackrel{*}{,} FIJI : Ura,$ Taveuni, i.1934 (*R. W. Paine*) (BMNH) ;  $I \stackrel{\circ}{,}$  same data, except date xi.1933 (BMNH).  $I \stackrel{\circ}{,} FIJI :$  Nabokoyia, Taveuni, iii.1934, ex pyralid cocoon on coconut tree (*R. W. Paine*) (BMNH). Townsend (1941:291), for *M. bezziana*, cited 'Ht' (= holotype) male and 'At' (= allotype) female in London without further information; since there are at least two male original syntypes Townsend's statement does not restrict the name to a single specimen and is not a valid lectotype fixation. A lectotype is therefore here newly designated.

- Myiostoma magna Baranov, 1935a: 557. Holotype Q, JAPAN: Hokkaido, Sapporo, 7.ix.1923 (S. Takano) (USNM).
- Parexorista latistylata Baranov, 1934d: 405. Holotype &, FORMOSA: [Formosan locality unknown] i. (H. Sauter) (USNM). Genitalia on slide.
  - The holotype bears Baranov's label reading ' Carcelia latistylata n.sp. N. Baranoff TYPUS '.
- Phorocera imperator Baranov, 1936: 109. Holotype J, CELEBES: S. Celebes, Samanga, xi.1895 (H. Frühstorfer) (BMNH, ex coll. Wainwright). Genitalia in situ.
- Phorocera isabeli Baranov, 1938a: 171. Holotype &, SoloMon Islands: Isabel, Tatamba, 11.vii [publ. as vi].1935 (R. J. A. W. Lever) (BMNH). Genitalia in situ.
- **Phorocera magna** Baranov, 1934a: 46. LECTOTYPE J, INDONESIA: Moluccas, Batjan, viii.1929 (W. Roepke) (USNM: genitalia slide only).

This species was described from material obtained by W. Roepke in July and August, 1929, while investigating the parasites of *Thosea moluccana* Roepke, 1935 (Lepidoptera : Limacodidae), a serious pest of coconut in Batjan island, Moluccas. The description of *Phorocera magna* by Baranov (1935b) was published as an unpaginated appendix following the last page (p. 38) of Roepke's (1935) account of his work in Batjan, and was based upon four syntypes (23, 29) with the data cited by Baranov as 'Molukkeninsel Batjan, vii, 1929 (W. Roepke)'; this description, which Baranov intended to be the original description, had however already appeared in print in an earlier paper (Baranov, 1934a) while Roepke's work was still in press. The name *Phorocera magna* is therefore nomenclaturally available from the 1934 paper here cited.

Baranov (1934a), as well as repeating the description, mentioned two small specimens of *P. magna* from Ceylon, but we do not accept these specimens (which, in any case, we have been unable to locate) as original syntypes because the description was made only from the Moluccan material.

Unfortunately we have been unable to locate any of the four original syntypes, but a slide preparation of the male genitalia of one of them is in USNM (ex Baranov collection) and this we have fixed as lectotype. However, there are four specimens of P. magna in the Museum Zoologicum Bogoriense and four specimens in the Central Agricultural Research Institute, Bogor, which were all collected by Roepke in Batjan and reared from Thosea moluccana; none of these other eight topotypic specimens existing in Bogor have been labelled by Baranov and all have the date 'xii.1929' (the original material was collected in July or August), and there is no evidence that any of them are syntypes. Furthermore, each of them has a locality label reading 'Penamboean, Batjan', and it is unlikely that Baranov would have omitted the first of these words in his unusually full citation of data for P. magna if some of these specimens were his original material. Thus we are convinced that none of the specimens now in Bogor represent type-material. It is especially surprising that Baranov's own collection at the U.S. National Museum does not contain at least one complete syntype, as Baranov normally retained part of his type-series if this consisted of several specimens. Finally, we should record that Baranov (1934a) cited the month date of the original syntypes as 'VIII', but in the later description published (Baranov, 1935b) he gave it as 'VII'. In the absence of syntypes we are unable to say for certain which is correct, but the lectotype genitalia slide has the August month date and we accept this as correct. The month date xii ' on specimens in Bogor might also possibly be in error for ' vii ' or ' viii ', but we have no evidence on this.

The specimens of *P. magna* in the Museum Zoologicum Bogoriense are three females and one male, but we do not know how many of each sex are present among the four specimens in the Central Agricultural Research Institute, Bogor.

**Phorocera magna** form **maxima** Baranov, 1936: 105. LECTOTYPE  $\mathcal{Q}$ , Formosa: Sokutsu, ix.1912 (*H. Sauter*) (USNM). Genitalia *in situ*.

Paralectotypes : I 3, same data as lectotype (USNM). I 3 (genitalia slide only), same data as lectotype (USNM).

**Phorocerosoma anomala** Baranov, 1936: 99. Lectotype Q, by designation of Crosskey (1966: 108), FORMOSA: Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI).

Paralectotypes :  $I \stackrel{\circ}{\supset}$ , same data as lectotype, except date 22.vi.1912 (USNM).  $3 \stackrel{\circ}{\heartsuit}$ , same data as lectotype, except date vi.1912 (DEI).  $I \stackrel{\circ}{\heartsuit}$ , same data as lectotype, except date ix.1912 (DEI).  $I \stackrel{\circ}{\heartsuit}$ , same data as lectotype, except date 7.ix.1912 (DEI).  $I \stackrel{\circ}{\Huge{o}}$ ,  $2 \stackrel{\circ}{\Huge{o}}$ , Formosa: Toa Tsui Kutsu, v.1914 (*H. Sauter*) ( $\stackrel{\circ}{\Huge{o}} \stackrel{\circ}{\Huge{o}}$  USNM,  $\stackrel{\circ}{\Huge{o}}$  DEI).

The paralectotype series is mixed and consists of two species of *Phorocerosoma* Townsend (see Crosskey, 1966 : 108–109). The two females in the DEI collection with the data ' Toa Tsui Kutsu' and 'Kankau ix.1912' are actually specimens of *Phorocerosoma vicarium* (Walker) and are not conspecific with the lectotype of *anomala* and most of the paralecto-types (which have four strong marginal setae on the third abdominal tergite and are actually specimens of *Phorocerosoma postulans* (Walker), the senior synonym of *anomala*). The lectotype and all paralectotypes of *anomala* bear the name 'Exorista anomala ' in Baranov's writing.

Baranov (1936:99) makes it clear that the description of *anomala* is based solely on Formosan specimens, although he cited the data ('  $I \stackrel{*}{\circ}$ , Ugi Is., 6.v.1934, leg. R. A. Lever ') of a specimen from the Solomon Islands. This specimen is in the BMNH collection and was cited by Crosskey (1966:108) as a syntype of *anomala*: we now consider, however, that it has no type-status.

At present the name anomala is in synonymy with *postulans*, but it should be noted that if again treated as valid in combination with *Phorocerosoma* the correct spelling will be anomalum (under Article 34(b) of the *International Code of Zoological Nomenclature*, 1961).

Plagioderophagus niger Baranov, 1938b: 412. LECTOTYPE J, INDIA: U.P., Dehra Dun, 22.iv.1930, ex larva of Plagiodera rufescens defol.[iating] Flacourtia Ramnotchi (S. N. Chatterjee) (BMNH). Genitalia in situ.

Paralectotypes : I  $\mathcal{J}$ , 2  $\mathcal{Q}$ , same data as lectotype ( $\mathcal{J} \mathcal{Q} \text{ USNM}$ ,  $\mathcal{Q} \text{ BMNH}$ ).

Beeson & Chatterjee (1935: 177) had already published this name, prior to Baranov's description, with a note on the life-history, but they gave no description and the name is therefore nomenclaturally unavailable from Beeson & Chatterjee (1935) under Article 13a (i) of the *International Code of Zoological Nomenclature*, 1961.

Platerycia compressa Baranov, 1936 : 111. LECTOTYPE S, FORMOSA : Tainan, v.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes :  $I \stackrel{\circ}{\rightarrow}, I \stackrel{\circ}{\rightarrow}, \text{ same data as lectotype (USNM). } I \stackrel{\circ}{\rightarrow}, \text{ FORMOSA : Koshun, Kankau, 7.vii.1912 (H. Sauter) (DEI). } I \stackrel{\circ}{\rightarrow}, \text{ FORMOSA : Hoozan, 7.ii.1911 (H. Sauter) (DEI). }$ 

- **Prosopodes leveri** Baranov, 1938b: 410. Holotype  $\mathcal{Q}$ , Solomon Islands: Russell Island, Karamola, 20.ix.1934 (R. J. A. W. Lever) (BMNH).
- **Protonemoraea japanica** Baranov, 1935a: 556. Holotype &, JAPAN: Hokkaido, Sapporo, 10.ix.1923 (S. Takano) (USNM). Genitalia on slide.

The USNM collection also contains the female specimen noted by Baranov in the original publication as being probably conspecific with the holotype. Its data are : JAPAN : Hokkaido, Kamuikotan, 5.viii.1930 (S. Takano).

- **Protonemoraea takanoi** Baranov, 1935a: 557. Holotype Q, JAPAN: Hokkaido, Sapporo, 15.viii.1924 (S. Takano) (USNM).
- Stomatomyia bezziana Baranov, 1934a : 48. Lectotype 3, by designation of Crosskey (1966a : 673), CEYLON : Batticaloa, 13.iii.1922, ex Nephantis serinopa (J. C. Hutson) (BMNH). Genitalia on slide.

Paralectotype : 1 3, same data as lectotype (BMNH).

**Sturmia bella oceanica** Baranov, 1938a: 170. Holotype ♀, Solomon Islands: San Cristobal, Waiai, 8 [publ. as S].v.1935 (R. J. A. W. Lever) (BMNH).

Sturmia bisetosa Baranov, 1932b: 75. Holotype J, FORMOSA: Sokutsu, ix.1912 (H. Sauter) (DEI).

The holotype lacks the genitalia and the slide preparation has not been located.

- Sturmia chatterjeeana Baranov, 1934c: 484. Holotype S, INDIA: U.P., Dehra Dun 17.iv.1934, parasitic on *Euproctis bipunctapex* (S. N. Chatterjee) (BMNH). Genitalia in situ. The BMNH collection contains two male specimens with same data as holotype except for date 18.vi.1934 and three female specimens with same data as holotype except for date 20.iv.1934; the USNM collection contains a male with same data as the holotype and a male with date 18.iv.1934; they bear Baranov's determination labels as *chatterjeeana* but they are not type-material.
- Sturmia hutsoni Baranov, 1934a: 42. LECTOTYPE S, CEYLON: Mawanella, 7.iii.1928, larval parasite of *Earias fabia* feeding on *Hibiscus esculentus* (J. C. Hutson) (BMNH). Genitalia in situ.

Paralectotypes : 3 Å, same data as lectotype (2 Å BMNH, 1 Å USNM). One of the paralectotypes in BMNH lacks the abdomen.

Sturmia inconspicuella Baranov, 1932b : 79. Lectotype 3, by designation of Crosskey 1967c : 57, 59), FORMOSA : Koshun, Kankau, viii.1912 (H. Sauter) (DEI). Genitalia in situ. Paralectotypes : 25 3, 6  $\varphi$ , same data as lectotype, except several dates from iv.-xi.1912 (21 3, 5  $\varphi$  DEI ; 1 3 BMNH ; 1  $\varphi$  USNM). 1 3, FORMOSA : Sokutsu, ix.1912 (H. Sauter) (DEI).

There is also one male paralectotype in the collection of the Department of Agriculture, Pakistan, but the data are not known to us.

Sturmia inconspicuoides Baranov, 1932b: 80. Lectotype 3, by designation of Crosskey (1967c: 50, 51), FORMOSA: Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI).

Paralectotypes :  $I \mathcal{J}, 3 \mathcal{Q}$ , same data as lectotype (DEI). 2  $\mathcal{Q}$ , same data as lectotype, except date ix.1912 (DEI & USNM). 5  $\mathcal{J}$ , FORMOSA : Sokutsu, ix.1912 (*H. Sauter*) (2  $\mathcal{J}$  DEI ; 2  $\mathcal{J}$  USNM ;  $I \mathcal{J}$  BMNH).

The lectotype lacks the genitalia and the slide preparation has not been located. Two of the paralectotypes  $(\mathfrak{P})$  in DEI collection with the same data as the lectotype and the female in DEI with data 'Kankau ix.1912 ' are believed to be misidentified and not conspecific with the lectotype (see Crosskey, 1967c: 51); it is probable also that the female specimen in USNM with the same data 'Kankau ix.1912 ' is likewise not conspecific with the lectotype.

Sturmia latiforceps Baranov, 1932b: 78. Lectotype 3, by designation of Crosskey (1967c: 72–73), FORMOSA: Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes : 6 J, same data as lectotype (4 J DEI ; 1 J USNM ; 1 J coll. Mesnil, Delémont). 1 J, same data as lectotype, except date ix.1912 (BMNH). 2 J, same data as lectotype, except date iv.1912 (DEI & USNM). 1 J, same data as lectotype, except date v.1912 (DEI). 2 J, FORMOSA : Sokutsu, ix.1912 (H. Sauter) (DEI).

In the original publication Baranov mentioned thirteen males from Kankau and Sokutsu ; all have been located and are accounted for above.

Sturmia latistylata Baranov, 1932b: 79. LECTOTYPE J, FORMOSA: Koshun, Kankau, 7.ix.1912 (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes :  $3 \sigma$ ,  $1 \varphi$ , same data as lectotype, except no day date (DEI).  $2 \sigma$ ,  $1 \varphi$ , same data as lectotype, except date 7.viii.1912 ( $\sigma$  DEI,  $\sigma \varphi$  USNM).  $1 \sigma$ , same data as lectotype, except date vii.1912 (USNM).  $4 \sigma$ , FORMOSA : Kanshizei, v.1908 (*H. Sauter*) ( $2 \sigma$  DEI,  $2 \sigma$  BMNH).  $1 \sigma$ , FORMOSA : Sokutsu, ix.1912 (*H. Sauter*) (DEI.).

In the original publication Baranov mentioned fourteen specimens (11 3, 3 ); we have located this total, but 12 3 and 2 2. One of the males in USNM collection has a pair of proclinate orbital setae and may have been mistaken for a female, thus accounting for the discrepancy. The female paralectotype from Kankau in DEI collection, and one of the males from Kanshizei in the same collection, have lost the abdomen. The male paralectotype from Sokutsu is mis-associated with the lectotype, and is a specimen of *Zygobothria atropivora* (Robineau-Desvoidy); the male paralectotype in DEI with date 7.viii.1912 from Kankau is also mis-associated and is a specimen of a *Sisyropa* species.

- **Sturmia macrophallus** Baranov, 1932b: 76. Lectotype  $\mathcal{S}$ , by designation of Crosskey (1967b: 105), FORMOSA: Koshun, Kankau, ix.1912 (*H. Sauter*) (DEI). Genitalia on slide.
  - Paralectotypes : I 3, same data as lectotype (USNM). I  $\bigcirc$  FORMOSA : Tainan, v.1912 (H. Sauter) (DEI.)

All specimens mentioned by Baranov in the original publication have been located and are listed above. In addition the Baranov collection in USNM has another male with data identical to those of the lectotype, but it is not mentioned as part of the original syntype series and is not therefore a paralectotype.

Sturmia nigribarbis Baranov, 1934a: 42. LECTOTYPE J, BURMA: Upper Thaungyin, Moulmein, 17.viii.1931, parasitic on Hapalia machaeralis pupa (D. J. Atkinson) (BMNH). Genitalia in situ.

Paralectotypes :  $2 \Im$ ,  $2 \Im$ , same data as lectotype ( $\Im \Im$  USNM,  $\Im \Im$  BMNH).  $3 \Im$ , same data as lectotype, except date 14.viii.1931 (1 in BMNH, 2 in USNM).

Sturmia oculata Baranov, 1932b: 80. Holotype 3, FORMOSA: Tainan, v.1912 (H. Sauter) (location not traced, possibly lost).

The holotype of *oculata* should be in the DEI collection, and was recorded as present in that collection by Hennig (1941 : 199). It is now missing from DEI collection and has not been located.

Sturmia painei Baranov, 1934a: 42. Lectotype 5, by designation of Crosskey (1967c: 81-82), JAVA: [Javanese locality unknown] 1929-30, ex Tirathaba sp. (R. W. Paine) (BMNH). Genitalia in situ.

Paralectotypes : 2 3, 3  $\Im$ , same data as lectotype (1 3, 2  $\Im$  BMNH ; 1 3, 1  $\Im$  USNM). 1 3 (genitalia slide only), same data as lectotype (USNM).

Sturmia paradoxalis Baranov, 1932b : 80. Holotype 3, FORMOSA : Sokutsu, ix.1912 (H. Sauter) (DEI). Genitalia on slide.

Mesnil's (1951: 200) citation of the month date of the holotype as 'November' is in error.

Sturmia picta Baranov, 1932b: 77. LECTOTYPE &, FORMOSA: Koshun, Kankau, 7.viii. 1912 (H. Sauter) (DEI). Genitalia in situ.

Paralectotypes : 2 J, same data as lectotype (DEI & USNM). I J, I  $\mathcal{G}$ , same data as lectotype, except no day date (J DEI,  $\mathcal{G}$  USNM). J J, I  $\mathcal{G}$ , same data as lectotype, except date vi.1912 (2 J DEI; I J, I  $\mathcal{G}$  USNM). I J, same data as lectotype, except date ix.1912 (BMNH).

Hennig (1941 : 199) recorded 16 ' Typen ' in DEI collection, but some of these have not been traced.

- Sturmia sumatrana Baranov, 1932d : 1. Holotype  $\mathcal{Q}$ , SUMATRA : N.O. Sumatra, Medan, iv.1928 (J. C. v. d. Meer Mohr) (USNM).
- Sturmia trisetosa Baranov, 1932b : 78. Lectotype 3, by designation of Crosskey (1967b : 105), FORMOSA : Koshun, Kankau, vii.1912 (H. Sauter) (DEI). Genitalia on slide.

Paralectotypes :  $I \Leftrightarrow$ , same data as lectotype (USNM).  $I \diamondsuit, 2 \Leftrightarrow$ , same data as lectotype, except date 7.viii.1912 ( $\oiint$  BMNH,  $2 \Leftrightarrow$  DEI).  $I \diamondsuit,$  same data as lectotype, except date viii.1912 (USNM).  $I \circlearrowright, 3 \diamondsuit$ , same data as lectotype, except date ix.1912 ( $I \circlearrowright, 2 \diamondsuit$  DEI,  $I \Leftrightarrow$ BMNH).  $I \circlearrowright,$  FORMOSA : Sokutsu, vi.1912 (*H. Sauter*) (DEI).  $I \diamondsuit$ , FORMOSA : Taihorinsho, ix.1912 (*H. Sauter*) (DEI).

The paralectotype from Taihorinsho (DEI) and the male paralectotype from Kankau ix.1912 in DEI collection have lost the abdomen.

Sturmia trisetosoides Baranov, 1932b: 78. Lectotype 3, by designation of Crosskey (1967b: 105), FORMOSA: Tainan, iv.1910 (H. Sauter) (DEI). Genitalia on slide.

Paralectotype : 1 3, same data as lectotype (USNM).

Baranov based the original description on two males and a female, all from Tainan. The female syntype has not been located. The Baranov collection in USNM contains four males that have the same data as the lectotype and are all labelled by Baranov as 'n.sp. N. Baranoff ' in his usual style of label. Not all of these can be regarded as syntypes, since the original description mentions only two males (i.e. one in addition to the lectotype) ; one of them, however, has had the hypopygium extracted and it is considered that this one is the second specimen of the original pair (it is therefore listed as male paralectotype above, and has been labelled as such).

Sturmia unguicularis Baranov, 1934c: 480. Holotype J, JAVA: Ngantang (Frau Neuhaus) (USNM).

The holotype lacks the genitalia and the slide preparation has not been located. In the original description Baranov mentioned a second specimen from New Caledonia which he expressly excluded from the type-material by the following statement : 'Vorliegende Beschreibung bezieht sich auf das javanische Exemplar und das neukaledonische Exemplar, welches in ziemlich schlechten Zustande ist, betrachte ich nur als Idiotype und nicht als Cotype'. This specimen, in poor condition as Baranov said, is in the BMNH collection and has the following data :  $\mathcal{J}$ , NEW CALEDONIA : Noumea, 17.V.1928 (T. D. A. Cockerell).

- Sturmia unisetosa Baranov, 1932b : 75. Lectotype 3, by designation of Crosskey (1967c : 68–69), FORMOSA : Koshun, Kankau, 7.viii.1912 (H. Sauter) (DEI).
  - Paralectotypes : 1 3, same data as lectotype, except date 7.ix.1912 (DEI). 1 3, same data as lectotype, except date ix.1912 (USNM).

The lectotype lacks the genitalia and the slide preparation has not been located.

Sturmia vicinella Baranov, 1932b : 79. Holotype J, FORMOSA : Tainan, iv.1910 (H. Sauter) (DEI).

The holotype lacks the genitalia and the slide preparation has not been located.

Sturmia wainwrighti Baranov, 1932f: 100. Holotype 3, INDIA: Assam, Khasia Hills, 21.iii.1911 (C. B. Antram) (BMNH, ex coll. Wainwright). Genitalia in situ.

Paratypes : 73, 89, same data as holotype (BMNH). 13, same data as holotype (USNM). 33, 29, same data as holotype, except date 20.iii.1911 (BMNH). 19, same data as holotype, except date 20.iii.1911 (USNM). 19, same data as holotype, except date 23.iii.1911 (BMNH). 13, same data as holotype, except date 11.iii.1910 (BMNH).

Not all of the dates of the paratype material were recorded by Baranov in the original publication, but we are nevertheless satisfied that all the specimens (other than the holotype) listed above are acceptable as paratypes.

- Sumatrodexia incisuralis Baranov, 1932e : 215. Holotype &, CHINA : Szechwan, Tatsienlu (*Exp. Stötzder*) (Staatliches Museum für Tierkunde, Dresden). Genitalia on slide.
- Sumatrodexia montana Baranov, 1932e : 215. LECTOTYPE J, JAVA : Tjibodas, 1400 m, xii.1927 (USNM). Genitalia in situ.

Paralectotypes : 3 3, same data as lectotype (2 in MZ, Bogor & one in BMNH).

Both paralectotypes in the Bogor collection lack the genitalia, but an associated slide preparation from one of them is present in the same collection.

- Sumatrodexia vittata Baranov, 1932e: 215. Holotype &, JAVA: Surabaja (USNM). Genitalia in situ.
- **Takanoella parvicornis** Baranov, 1935*a*: 559. Holotype J, JAPAN: Hokkaido, Sapporo, 28.iv.1924 (S. Takano) (USNM). Genitalia *in situ*.
- Tamanukia japanica Baranov, 1935a: 551. Holotype J, JAPAN: Hokkaido, Obihiro, 30.viii.1924 (S. Tamanuki) (USNM). Genitalia on card mount below locality label.
- **Trichoformosomyia sauteri** Baranov, 1934*f*: 164. LECTOTYPE 3, FORMOSA: Formosa I. (*H. Sauter*) (DEI). Genitalia *in situ*.
  - Paralectotypes : 1 3, Formosa : Sokutsu, vi.1912 (BMNH). 1 3, Formosa : Suisharya, x.1911 (USNM).
  - Baranov did not state the number of male specimens on which the description was based, but Townsend (1939: 145) assumed that the specimen in DEI collection was the 'Ht' (= holotype). We do not accept this as a valid lectotype fixation because there are other male syntypes with Baranov's 'n.g., n.sp. ' labels in other collections, and we therefore here fix the lectotype of *T. sauteri* by present designation.
- **Tricholyga psychidarum** Baranov, 1934a : 47. Holotype J, SUMATRA : Pematang Siantar, Naga Hoeta Estate, 1750 ft., 10.x.1931, ex larva of bagworm (*R. I. Nel*) (BMNH). Genitalia on slide.
  - Paratypes : 2  $\delta$ , same data as holotype (USNM). I  $\delta$ , same data as holotype, except date given as 6-10.X.1931 (BMNH). I  $\Diamond$ , same data as holotype, except date 14.X.1931 (USNM). I  $\Diamond$ , SUMATRA : Pematang Siantar, Simpang Raja Estate, 2200 ft., 17.i.1932 (*R. I. Nel*) (BMNH) ; I  $\Diamond$ , Pematang Siantar, Bah Kapoel Estate, 1500 ft., 2.i.1932, ex larva of bagworm (USNM). I  $\Diamond$ , SUMATRA : Pematang Siantar, Mardjandi Estate, 2500 ft., 24.i.1932, ex larva of bagworm (*R. I. Nel*) (BMNH).
  - In the original description Baranov characterized *psychidarum* as having hairy eyes, but mentioned that most specimens of the type-material had the hairing rubbed off (' bei den meisten Exemplaren Behaarung abgerieben '). From our own examination of the holotype and paratype material we are sure that two separate species are involved, one having the eyes virtually bare in the natural state and the other having the eyes conspicuously long haired, for the eye difference is associated with quite different forms of male genitalia; other material of the complex now available also confirms this conclusion. The holotype has bare eyes, and the name *psychidarum* therefore applies to the species with this character. Most of the above-listed paratypes have bare eyes and are conspecific with the holotype, but two of the female paratypes are hairy-eyed and mis-associated : these are the USNM specimen with date 2.i.1932 and the BMNH specimen from Mardjandi Estate, 24.i.1932. No applicable name is known to us for the hairy-eved species, which appears at present to be undescribed. The BMNH collection contains a hairy-eyed male with data 'Sumatra, Naga Hoeta Est., P. Siantar, 8.xii.30 R. I. Nel' but it bears a determination label in Baranov's writing as ' Eutachina psychidarum Baranoff' and is evidently not an original paratype. The same collection also has a hairy-eyed female with data ' Malaya, Chebiot Estate, Labu, 28.9.1928', but is also labelled by Baranov as 'Eutachina psychidarum Bar.' and is presumed not to be the paratype mentioned in the original publication from 'Malaya, 28.ix.1928', which has not been seen.
- Vibrissina hokkaidensis Baranov, 1935a: 554. LECTOTYPE 3, JAPAN: Hokkaido, Sapporo, 19 [publ. as 12].x.1923 (S. Takano) (USNM). Genitalia in situ.
  - Paralectotype : I  $\mathcal{Q}$ , same data as lectotype (USNM).
- Voria edentata Baranov, 1932a: 83. Holotype J, FORMOSA: Koshun, Kankau, 22.vi.1912 (H. Sauter) (not located and possibly lost: formerly in DEI).
  - Baranov described this species only from the single specimen recorded above and cited the DEI collection as the type depository. The holotype was later seen and recorded by Hennig (1941 : 192), who also cited the locality and date as 'Kankau, VI' for the type and mentioned three other specimens in the DEI collection (another specimen from Kankau and two

just with the data 'Formosa'). We have been unable during the preparation of the present work to locate the holotype specimen and consider that it is possibly lost; furthermore, the DEI collection now contains only two of the three other specimens recorded by Hennig (viz. a male with data 'Kankau 7.vii.1912 H. Sauter ' and female with data ' Formosa I Sauter ', both determined by Baranov as *Voria edentata*).

In a revision of Old World Voriini the data of the 'type' of *edentata* has been cited by d'Aguilar (1957: 262) as 'l'ile de Taiwan: Kankau, récolté en juillet-août 1912, par H. Sauter', but Baranov clearly cited the holotype date as '22.vi.1912' in the original publication and Hennig also found the month date to be June. Thus probably d'Aguilar did not see the true holotype from DEI, but may have seen the later determined specimen from Kankau in DEI collection (recorded above), although this specimen bears no month date August. Dr. d'Aguilar (personal communication) has kindly confirmed that the specimen seen by him was returned to DEI, and Dr. L. P. Mesnil has confirmed that the holotype is not on loan to him at Delémont.

It should be noted that the slide preparation of the male genitalia from the specimen of V. *edentata* with the date 'Kankau 7.vii.1912' is also in the DEI collection, but not the slide preparation from the holotype.

- Winthemia diversa solomonica Baranov, 1938b: 405. Holotype 3, SoloMon Islands: Tulagi, 4.ix.1934, ex psychid cocoon (R. J. A. W. Lever) (BMNH). Genitalia in situ.
- Winthemia diversoides Baranov, 1932c: 47. Holotype S, FORMOSA: Sokutsu, ix.1912 (H. Sauter) (DEI). Genitalia on slide.

At the time of writing the holotype is temporarily in the collection of Dr. L. P. Mesnil, at Delémont, Switzerland.

- Winthemia hokkaidensis Baranov, 1939 : 110. Holotype Q, JAPAN : Hokkaido, Sapporo, 10.ix.1923 [publ. as 1929] (S. Takano) (USNM).
- Winthemia mallochi Baranov, 1932c: 46. Holotype J, FORMOSA: Koshun, Kankau, vi.1912 (H. Sauter) (DEI). Genitalia on slide.

At the time of writing the holotype is temporarily in the collection of Dr. L. P. Mesnil, at Delémont, Switzerland.

- **Zenillia caldwelli** Baranov, 1938b : 409. Holotype  $\mathcal{Q}$ , Australian New Guinea : Admiralty Islands, Manus, 1932 (N. E. H. Caldwell) (BMNH).
- Zenillia roseanella Baranov, 1936 : 104. LECTOTYPE &, FORMOSA : Sokutsu, ix.1912 (H. Sauter) (USNM). Genitalia on slide.

Paralectotypes : none traced.

In the original publication Baranov recorded a specimen from New Britain that is now in the BMNH collection and has the following data : 3 (without abdomen) New BRITAIN : Rabaul, 29.i.1934, ex lepidopterous larva (*J. L. Froggatt*). This specimen, however, has only a Baranov determination label as 'Zenillia roseanella Baranoff', and it is not a syntype because Baranov expressly stated that the description was based on 'Exemplare' from Formosa which he was publishing in the 1936 paper ('hier an dieser Stelle') as it had not yet appeared elsewhere. Thus the name is based on syntypes from Formosa, of which only one (here fixed as lectotype) has been located.

## PART II.—BARANOV'S MANUSCRIPT NAMES THAT HAVE BEEN PUBLISHED.

We bring together in the following alphabetical list all those manuscript names of Baranov that have appeared in print, either as *nomina nuda* or as species-group names made available by the action of later authors. The available species-group names are shown in **bold** type.

Actia mallochiana Gardner, 1940 : 178 (Actia mallochiana Baranov MS). Available name, attributable to Gardner.

Gardner described the puparium of a species of Tachinid fly under Baranov's hitherto unpublished manuscript name *Actia mallochiana*. Under Article 10 of the *International Code of Zoological Nomenclature*, 1961, the name *mallochiana* is made available by, and must be attributed to, Gardner.

Allophora dubiosa Baranov in Hennig, 1941 : 187. Nomen nudum.

Hennig listed without description (as '*Phasia dubiosa* Baranoff') a specimen in DEI collection from Formosa that bears a Baranov label as 'Allophora dubiosa n.sp. N. Baranoff'; the name was not published by Baranov and remains a *nomen nudum*.

Argyrophylax rufitibialis Baranov in Hennig, 1941 : 196. Nomen nudum.

Hennig listed, under this name and without description, a specimen from Hoozan in Formosa in DEI collection; the name was not published by Baranov and remains a *nomen nudum*. Mesnil (1944:27) also cited the name, but did not validate it by description.

Bactromyia compsiluroides Baranov in Baranov, 1938b : 409. Nomen nudum.

Baranov mentions *compsiluroides* as a Formosan species in his original description of *Bactromyia crassiseta* Baranov, 1938, but without characterizing it, and the name remains a *nomen nudum*.

*Cossidophaga kalshoveni* Baranov *in* Baranov, 1934*f*: 161. Manuscript name cited in synonymy, unavailable.

This name was cited by Baranov in synonymy under Cossidophaga atkinsoni (Aubertin), a species described by Aubertin (1932) as Podomyia atkinsoni. Baranov (1934f: 161), when describing the new genus Cossidophaga for atkinsoni, abandoned his intended specific name kalshoveni for this species but published the latter name in synonymy; it is unavailable under Article 11 (d) of the International Code of Zoological Nomenclature, 1961.

Crocuta taiwanica Baranov in Hennig, 1941 : 195. Nomen nudum.

Hennig listed without description (as '*Siphona taiwanica* Baranoff ') four specimens in the DEI collection from Macuyama and Toa Tsui Kutsu in Formosa ; the name was not published by Baranov and remains a *nomen nudum*.

**Ctenophorocera sturmioides** Mesnil, 1950: 126 (*Prosopaea sturmioides* Baranov MS). Available name, attributable to Mesnil.

Mesnil (1950 : 126) described *Ctenophorocera sturmioides* as a new species based upon a male holotype specimen (in DEI collection) labelled by Baranov as 'Prosopaea sturmioides n.sp. N. Baranoff ' and with the data :—Formosa : Sokutsu, vi.1912 (*H. Sauter*). Mesnil placed the species in his subgenus *Parapales* Mesnil, and the holotype is labelled (in addition to Baranov's label) as 'Parapales sturmioides Mesn.' in Mesnil's writing.

Hennig (1941 : 196) listed the name *Prosopaea sturmioides* Baranoff but gave no description ; he mentioned three specimens in DEI collection from Formosa, one without further data, one from Toa Tsui Kutsu, and one from Sokutsu, of which only the last was seen by Mesnil (i.e. the holotype cited above). It should be noted that the month date of the holotype specimen from Sokutsu is 'vi' as given by Hennig, and not 'v' as given by Mesnil (1950 : 127).

Cuphocera varia form formosana Baranov in Baranov, 1936: 98. Manuscript name cited in synonymy, unavailable.

This name was cited by Baranov in synonymy under the true *Cuphocera varia* (Fabricius), and is unavailable under Article II (d) of the *International Code of Zoological Nomenclature*, 1961.

Cuphocera varia form malayana Baranov in Baranov, 1936: 98. Manuscript name cited in synonymy, unavailable.

This name was cited by Baranov in synonymy under the true *Cuphocera varia* (Fabricius), and is unavailable under Article II (d) of the *International Code of Zoological Nomenclature*, 1961.

**Dolicholon ater** Gardner, 1940 : 177 (*Dolichocolon ater* Baranov MS). Available name, attributable to Gardner.

Gardner described and figured the puparium of a species of Tachinid fly under Baranov's hitherto unpublished manuscript name *Dolichocolon ater*. Under Article 10 of the *International Code of Zoological Nomenclature*, 1961, the name *ater* is made available by, and must be attributed to, Gardner.

*Euhapalivora* indica Gardner, 1940: 179 (*Euhapalivora indica* Baranov MS). Available specific name, attributable to Gardner.

Gardner described and figured the puparium of a species of Tachinid fly under Baranov's hitherto unpublished manuscript name *Euhapalivora indica*. The specific name *indica*, even though published in combination with an unavailable genus-group name, is available under Article II (g) (ii) of the *International Code of Zoological Nomenclature*, 1961, and is attributable to Gardner under Article IO. The generic name *Euhapalivora* (as mentioned by Crosskey, 1967a: 13) is not accompanied, however, by a definition of the generic taxon and is a *nomen nudum* which is unavailable under Article I3 (a).

The species *indica* has been assigned to the genus *Pseudoperichaeta* Brauer & Bergenstamm by Crosskey (1967b).

Exorista apicalis Baranov in Hennig, 1941 : 193. Nomen nudum.

Hennig listed without description 20 specimens in DEI collection from Kankau and Sokutsu in Formosa ; the name was not published by Baranov and remains a *nomen nudum*. Mesnil (1950 : 153) cited *Exorista apicalis* Baranov as a synonym of *Sisyropa soror* Mesnil, 1944, but it is nevertheless unavailable from Mesnil under Article 11 (d) of the *International Code of Zoological Nomenclature*, 1961.

**Exorista grisellina** Gardner, 1940 : 177 (*Exorista grisellina* Baranov MS). Available name, attributable to Gardner.

Gardner described and figured the puparium of a species of Tachinid fly under Baranov's hitherto unpublished manuscript name *Exorista grisellina*. Under Article 10 of the *International Code of Zoological Nomenclature*, 1961, the name grisellina is made available by, and must be attributed to, Gardner.

Exorista maculiventris Baranov in Hennig, 1941 : 194. Nomen nudum.

Hennig listed, under this name and without description, two specimens in DEI collection from Kankau in Formosa; the name was not published by Baranov and remains a nomen nudum. Mesnil (1950: 154) cited Exorista maculiventris Baranov as a synonym of Sisyropa thermophila (Wiedemann, 1830), but it is nevertheless unavailable from Mesnil under Article 11 (d) of the International Code of Zoological Nomenclature, 1961.

Exorista pulchra Baranov. See Zenilliana pulchra Mesnil.

Exorista simulator Baranov in Hennig, 1941 : 194. Nomen nudum.

Hennig listed, under this name and without description, three specimens in DEI collection from Formosa, two without further data and the other one from Toa Tsui Kutsu; the name was not published by Baranov and remains a *nomen nudum*. Mesnil (1949:66) cited the name '*simulator* Bar. (in litt.)' as a synonym of *Phorocerosoma forte* Townsend without noting the generic name used by Baranov; it is nevertheless unavailable under Article II (d) of the *International Code of Zoological Nomenclature*, 1961.

Exorista winthemioides Baranov. See Nemosturmia winthemioides Mesnil.

Gymnodexia orientalis Baranov in Baranov, 1934a : 49. Nomen nudum.

Baranov (1934a: 49), in the original description of *Gymnodexia atkinsoni*, made the statement: 'Am nächsten zu *orientalis* mihi (in litteris)', but nowhere published a description of *orientalis*. Hennig (1941: 191), under the name *Gymnodexia orientalis* Baranoff but without description, listed three specimens in the DEI collection from Formosa. The name remains a *nomen nudum*.

Hyalomyodes orientalis Baranov in Hennig, 1941 : 189. Nomen nudum.

Hennig listed, under this name and without description, a specimen in DEI collection from Tainan in Formosa; the name was not published by Baranov and remains a *nomen nudum*.

Kosempomyia sauteri Baranov in Baranov, 1934 f : 165. Manuscript name cited in synonymy, unavailable.

This name was cited by Baranov in synonymy with *Kosempomyiella rufiventris* Baranov, and is unavailable under Article 11 (d) of the *International Code of Zoological Nomenclature*, 1961. Hennig (1941 : 187) listed the name without description, and mentioned three specimens in DEI collection, two from Formosa without other data and one from Kosempo in Formosa.

Leskia deaurata Baranov in Hennig, 1941 : 190. Nomen nudum.

Hennig listed, under this name and without description, a specimen in DEI collection from Sokutsu in Formosa ; the name was not published by Baranov and remains a *nomen nudum*.

Masicerella indistincta Gardner, 1940 : 178 (Masicerella indistincta Baranov MS). Available specific name, attributable to Gardner.

Gardner described and figured the puparium of a species of Tachinid fly under Baranov's hitherto unpublished manuscript name *Masicerella indistincta*. The specific name *indistincta*, even though published in combination with an unavailable genus-group name, is available under Article II (g) (ii) of the *International Code of Zoological Nomenclature*, 1961, and is attributable to Gardner under Article IO. The generic name *Masicerella* (as mentioned by Crosskey, 1967a : 18) is not accompanied, however, by a definition of the generic taxon and is a *nomen nudum* which is unavailable under Article I3 (a).

## Medinodexia formosana Baranov in Hennig, 1941 : 190. Nomen nudum.

Hennig listed, under this name and without description, a specimen in DEI collection from Tainan in Formosa; the name was not published by Baranov and remains a *nomen nudum*.

Meigenia setosa Baranov in Hennig, 1941 : 193. Nomen nudum.

Hennig listed, under this name and without description, a specimen in DEI collection from Hoozan in Formosa; the name was not published by Baranov and remains a *nomen nudum*.

**Nemosturmia winthemioides** Mesnil, 1949 : 76 (*Exorista winthemioides* Baranov MS). Available name, attributable to Mesnil.

Mesnil (1949: 76) described *Nemosturmia winthemioides* as a new species based upon a male holotype specimen from Formosa in the DEI collection labelled by Baranov as 'Exorista Winthemioides '; Mesnil erroneously attributed authorship of the name *winthemioides* to Baranov, but Baranov did not publish the name, and authorship of the name *winthemioides* is attributable to Mesnil.

Hennig (1941:194) listed the name '*Exorista winthemioides* Baranoff' and mentioned the single specimen in DEI collection (now the holotype of *Nemosturmia winthemioides* Mesnil), but he gave no description.

Paradionaea orientalis Baranov in Hennig, 1941 : 189. Nomen nudum.

Hennig listed, under this name and without description, a specimen in DEI collection from Kankau in Formosa; the name was not published by Baranov and remains a *nomen nudum*.

Phasia dubiosa Baranov. See Allophora dubiosa Baranov.

Phorinia flavipalpis Baranov in Hennig, 1941 : 194. Nomen nudum.

Hennig listed, under this name and without description, five specimens in DEI collection from Kankau in Formosa; the name was not published by Baranov and remains a *nomen nudum*.

**Phoriniophylax femorata** Mesnil, 1957: 14 (*Phoriniophylax femorata* Baranov MS). Available name, attributable to Mesnil.

Hennig (1941 : 196) listed, under this name but without description, two specimens in DEI collection from Tainan in Formosa that are determined by Baranov as 'Phoriniophylax femorata', but Baranov never published this name. Later Mesnil (1944 : 27) placed the name femorata Baranov in combination with Argyrophylax Brauer & Bergenstamm, but without validating it by description so that it remained at that time (1944) a nomen nudum. In a more recent work, however, Mesnil (1957 : 14) appended to the description of his new subspecies Argyrophylax nova novella Mesnil the following remark : 'il est probable que Phoriniophylax femorata Baranov est congénérique de cette espèce [Argyrophylax nova Mesnil]. Elle s'en distingue par ses pattes jaunes à tarses noirs'. We consider that this statement purports to give characters differentiating the taxon femorata, and that the name is nomenclaturally available under Article 13 (a) (i) of the International Code of Zoological Nomenclature, 1961; under Article 10 it takes the authorship and date of Mesnil, 1957.

Prosopaea sturmioides Baranov. See Ctenophorocera sturmioides Mesnil.

Siphona taiwanica Baranov. See Crocuta taiwanica Baranov.

Sumpigaster formosensis Baranov in Hennig, 1941 : 190. Nomen nudum.

Hennig listed, under this name but without description, three specimens in DEI collection from Formosa (no other data); the name was not published by Baranov and remains a *nomen nudum*.

Zenilliana pulchra Mesnil, 1949: 68 (Exorista pulchra Baranov MS.) Available name, attributable to Mesnil.

Mesnil (1949 : 68) described Zenilliana pulchra as a new species based upon a male holotype specimen from Sokutsu, Formosa, in the DEI collection, but erroneously attributed authorship of the name to Baranov ; however, Baranov did not publish it, and authorship of the name *pulchra* is attributable to Mesnil.

Hennig (1941: 194) listed the name 'Exorista pulchra Baranoff' and mentioned the single specimen in DEI collection (now the holotype of *Zenilliana pulchra* Mesnil), but he gave no description; hence *Exorista pulchra* Baranov in Hennig is a nomen nudum.

#### REFERENCES

*Note* : the references that follow contain a complete bibliography for Baranov's papers on Tachinidae, although it has not been necessary to cite all of these in the foregoing text.

- AUBERTIN, D. 1932. A tachinid fly parasitic on the bee-hole borer of teak. Stylops 1: 35-36.
- BARANOV, N. 1926a. Die in Serbien gesammelten Dexiinae. Encycl. ent. Série B II, 3: 56-60.
- 1926b. Prilog poznavanju srpskih Tachina (Beitrag zur Kenntnis der serbischen Tachiniden). Letopis poljoprivredne, ogledne i kontrolne stanice u Topčideru, No. 1:153–184. [In Serbian and German].
- 1927. Die nach Hypopygiumbau geordneten in Serbien gesammelten Tachinidae. Encycl. ent. Série B II, **4** : 31-44.
- —— 1928. Tachinidensammlung des zoologischen Museums in Zagreb. Glasn. hrv. prirodosl, Društ. **39–40**: 196–200.
- 1929a. Studien an pathogenen und parasitischen Insekten I. Die Jugoslavischen Arten der Tachinidengruppe *Echinomyia*. Arb. parasit. Abt. Inst. Hyg. Zagreb, No. 1 : 1-23.
- 1929b. Studien an pathogenen und parasitischen Insekten II. Beitrag zur Kenntnis der Phasiinen mit besonderer Berücksichtigung der Gruppe Ocyptera (Diptera. Tachin.). Arb. parasit. Abt. Inst. Hyg. Zagreb, No. 2: 1–22.
- 1929c. A contribution to the morphology of the tachinid flies bred from *Pyrausta nubilalis* Hb. Scient. Rep. int. Corn Borer Invest. **2**: 128–130.
- 1930a. Nekoliko riječi o Tachinama, koje parazitiraju na Pyrausta nubilalis Hb. Acta Soc. ent. jugosl. **3–4** (1928–1929) : 103–108.
- 1930b. Die wahre *Ceromasia senilis* Mg. und *juvenilis* Girschn. (Dipt., Tachin.). Konowia **9**: 34-36.
- 1930c. Die Sternitenkette des Abdomens bei den parasitären Raupenfliegen und ihre systematische Bedeutung. Z. Parasit Kde **2** : 506–534.
- 1931a. Studien an pathogenen und parasitischen Insekten III. Beitrag zur Kenntnis der Raupenfliegengattung Carcelia R.D. Arb. parasit. Abt. Inst. Hyg. Zagreb, No. 3 : 1-45.
- 1931b. Über Raupenfliegen, welche durch die Farbe des Abdomens Exorista confinis Fall. ähnlich sind. Wiener. ent. Ztg 48: 117-124.
- 1931c. Carcelia ambigua Villen. = Carcelia rasella Baranoff. Konowia 10:290.
- 1932a. Neue orientalische Tachinidae. Encycl. ent. Série B II, 6:83–93.
- 1932b. Zur Kenntnis der formosanischen Sturmien (Dipt. Larvaevor.). Neue Beitr. syst. Insektenk. 5: 70–82.
- 1932c. Zur Kenntnis der orientalischen Winthemia-Arten (Dipt. Larvaev.). Ent. NachrBl., Troppau 6:45-47.
- 1932d. Larvaevoridae (Ins. Dipt.) von Sumatra, I. Miscnea zool. sumatr. 66: 1-3.
- ---- 1932e. Zur Kenntnis der orientalischen Dexia-ähnlichen Arten. Wiener ent. Zig 49: 212-216.
- 1932*f.* Bestimmungstabelle der orientalischen *Sturmia*-Arten der *scutellata*-Gruppe (Dipt. Larv.). (Mit Berücksichtigung einiger verwandten Gattungen). *Ent. NachrBl., Troppau* **6**: 100–101.
- 1932g. O Eutachina civilis Rnd., parazitu metlice. Acta Soc. ent. jugosl. 5–6 (1930–1931): 62–65.
- ---- 1933. Cadurcia leefmansi, eine neue orientalische Raupenfliege (Dipt. Tach.). Treubia 14:153-154.
- 1934a. Mitteilungen über gezüchtete orientalische Larvaevoriden. (Insecta, Diptera). Ent. NachrBl., Troppau 8:41-49.

- BARANOV, N. 1934b. Zur Kenntnis der Raupenfliegenfauna der Salomon-Inseln (Dipt., Tachinidae). Stylops 3: 181-184.
- ---- 1934c. Zur Kenntnis der parasitären Raupenfliegen der Salomonen, Neubritanniens, der Admiralitäts-Inseln, der Fidschi-Inseln und Neukaledoniens, nebst einer Bestimmungstabelle der orientalischen Sturmia-Arten. Vet. Arh. 4: 472-485.
- 1934d. Übersicht der orientalischen Gattungen und Arten des Carcelia-Komplexes (Diptera : Tachinidae). Trans. R. ent. Soc. Lond. 82 : 387–408.
- ---- 1934e. Ein interessanter Fall von Sphecoidie bei der Larvaevoride Vespocyptera petiolata Townsend. Encycl. ent. Série B II, 7: 157-160.
- 1934 f. Neue Gattungen und Arten der orientalischen Raupenfliegen (Larvaevoridae). Encycl. ent. Série B II, 7 : 160–165.
- ---- 1935a. Neue paläarktische und orientalische Raupenfliegen (Dipt., Tachinidae). Vet. Arh. 5:550-560.
- 1935b. Eine neue orientalische Raupenfliege. Meded. LandbHoogesch. Wageningen 39 (1): [39-40].
- 1935c. Larvaevoridae (= Tachinidae, Dipt.). Wiss. Ergebn. niederl. Exped. Karakorum 1:407-409.
- 1936. Weitere Beiträge zur Kenntnis der parasitären Raupenfliegen (Tachinidae = Larvaevoridae) von den Salomonen und Neubritannien. Ann. Mag. nat. Hist. (10) 17: 97-113.
- 1938a. Weiteres über die Tachiniden (s.l.) der Salomon-Inseln. Vet. Arh. 8: 170-174.
- ---- 1938b. Neue indo-australische Tachinidae. Bull. ent. Res. 29 : 405-414.
- 1938c. Raupenfliegen (Tachinidae ș.l.) welche auf der Adria-Insel Pag beim Trinken von Meerwasser gefangen wurden. *Encycl. ent.* Série B II, **9** : 103–107.
- 1939. Sechs neue Raupenfliegen aus der Sammlung Takanos. Ent. NachrBl., Troppau
  12 (1938) : 110–112.
- 1942. Ein neuer Vespidenparasit von Java und eine mit ihm verwandte Fliege von den Salomon-Inseln. Vet. Arh. 12 : 161–163.
- BARANOV, N. & HERGULA, B. 1928. Über die systematische Stellung der aus Pyrausta nubilalis Hb. erzogenen Tachine Ceromasia senilis (Mg.) auct. nov. Glasn. hrv. prirodosl. Društ. 39-40: 192-195.
- BEESON, C. F. C. & CHATTERJEE, S. N. 1935. On the biology of the Tachinidae (Diptera). Indian Forest Rec. (Entom.) N.S., 1: 169-184.
- CROSSKEY, R. W. 1963. A systematic review of the Oriental and Australasian species of *Argyrophylax* Brauer and Bergenstamm, including the description of a new species from New Britain (Diptera : Tachinidae). *Ann. Mag. nat. Hist.* (13) **6** : 1-16.
- 1966. New generic and specific synonymy in Australian Tachinidae (Diptera). Proc. R. ent. Soc. Lond. (B) 35: 101-110.
- 1967a. An index-catalogue of the genus-group names of Oriental and Australasian Tachinidae (Diptera) and their type-species. Bull. Br. Mus. nat. Hist. (Ent.) 20: 1-39.
- ----- 1967b. New generic and specific synonymy in Oriental Tachinidae (Diptera). Proc. R. ent. Soc. Lond. (B) 36: 95-108.
- ---- 1967c. A revision of the Oriental species of *Palexorista* Townsend (Diptera : Tachinidae, Sturmiini). *Bull. Br. Mus. nat. Hist.* (Ent.) **21** : 35-97.
- D'AGUILAR, J. 1957. Révision des Voriini de l'ancien monde (Dipt. Tachinidae). Annls Épiphyt. Série C, 8 : 235-270.
- GARDNER, J. C. M. 1940. The puparia of some Indian Tachinidae (Diptera). II. Indian J. Ent. 2: 177-181.
- HENNIG, W. 1941. Verzeichnis der Dipteren von Formosa. Ent. Beih. Berl.-Dahlem 8: 1-239.
- MESNIL, L. P. 1944. Larvaevorinae (Tachininae). In Lindner, Fliegen palaearkt. Reg. 64g: 1-48.

| MESNIL, L. P. 1949. Larvaevorinae (lachininae). In Lindner, Filegen palaearki. Reg. 64g   |
|---|
| 49–104.   |
| — 1950. Larvaevorinae (Tachininae). In Lindner, Fliegen palaearkt. Reg. 64g : 105–160     |
| — 1951. Larvaevorinae (Tachininae). In Lindner, Fliegen palaearkt. Reg. 64g : 161–208     |
| — 1957. Nouveaux Tachinaires d'Orient (Deuxième série). Mém. Soc. r. ent. Belg. 28 : 1–80 |
| — 1960. Larvaevorinae (Tachininae). In Lindner, Fliegen palaearkt. Reg. 64g : 561–608     |
| — 1962. Larvaevorinae (Tachininae). In Lindner, Fliegen palaearkt. Reg. 64g : 705-752     |
| ROEPKE, W. 1935. De slakrupsenplaag op het Molukken-eiland Batjan. Meded. Landb           |
| Hoogesch. Wageningen <b>39</b> (I): $I-38$ (with two-page unpaginated appendix).          |
| SENIOR-WHITE, R. 1922. Notes on Indian Diptera. Mem. Dep. Agric. India ent. Ser. 7        |
| i-vi + 83-169.  |
| , AUBERTIN, D. & SMART, J. 1940. Family Calliphoridae. Fauna Br. India, Diptera 6         |
| 288 pp., London.  |
| TOWNSEND, C. H. T. 1938. Manual of Myiology. Part VII. 434 pp. Itaquaquecetuba            |

- São Paulo.
- 1939. Manual of Myiology. Part IX. 270 pp. Itaquaquecetuba, São Paulo.
  - 1941. Manual of Myiology. Part XI. 342 pp. Itaquaquecetuba, São Paulo.

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